Year 4

Answers

Term 1

Units 1 – 10

ENGLISH

ANSWERS

TERM 1

YEAR 4

UNIT 1

Set 1 Strategy: Summarising

1) (b)
2) (b)

Set 2 Novel Extract:
Who did Patrick's Homework?

1) (c)
2) (c)
3) (b)
4) (b)
5) (c)
6) (c)
7) Very annoyed; he felt as if he was cursed
8) English, maths and history.

Set 3 Explanation

1) (a)
2) (c)
3) (a)
4) (a)
5) (b)
6) 4 (dem-o-crat-ic)
7) It helps you remember the correct spelling.
8) Because it makes sure you remember how to spell the new words you have learnt.

GRAMMAR

1) there
2) their
3) they're
4) There
5) They're

VOCABULARY

1) stationary
2) emotion
3) solution
4) combination
5) duration

UNIT 2

Set 1 Strategy: Interpreting Figurative Language

1) wide whispering woods
2) the soft pine needles that covered the ground like a soft brown blanket.
3) he was as anxious as a fish out of water to find his family before evening
4) The thought of spending a night in the woods alone was one that made his heart dance a fearful frenzied jig in his chest

Set 2 Science Project

1) (b)
2) (b)
3) (b)
4) (b)
5) (a)
6) (d)
7) The patients that spent time with the dog experienced less discomfort during treatment.
8) Because he has had personal experience with pet therapy and knows first hand what his subjects are going through.

Set 3 Cloze Passage

1) environments
2) staple
3) prefer
4) milk
5) herdsmen
6) chew
7) wear
8) shoes

GRAMMAR

1) There
2) There
3) their
4) They're
5) their
6) They're, their, there
7) They're
8) their

PUNCTUATION

A purple mist swirled over the rock and its pinky-grey surface began to shine like a mirror.

As the smoke cleared, Lauren saw a picture appearing. It showed a large grassy campsite with a horse barn, paddocks, three white cabins with window boxes full of flowers and a long low central building. Dark woods fringed the fields. Through them, Lauren could see the silvery gleam of a creek in the moonlight.

UNIT 3

Set1 Strategy: Finding the Main Idea

1) (d)
2) (b)

Set 2 Poem : Mr. Smith

1) (b)
2) (d)
3) (b)
4) (b)
5) (c)
6) (d)
7) Mr. Smith is not an experienced walker and will always take the shorter route. This could also mean he is lazy.
8) Think more and more and collects notebooks and hats.

Set 3 Information: Colour-Changing Bugs

1) The Panamanian golden tortoise beetle is able to change colours and camouflage itself when it is in danger. (or also changes colour – from gold to red)
2) (a)
3) (a)
4) (a)
5) (b)
6) (b)
7) red
8) to blend with the environment or ward off predators.

GRAMMAR

1) finds
2) likes
3) chews
4) live
5) jog
1) is raining
2) is singing
3) is having
4) is chasing
5) are eating

VOCABULARY

1) future
2) creature
3) nature
4) pasture
5) adventure

UNIT 4

Set 1 Strategy: Recalling Facts and Details

1) (b)
2) (b)
3) (b)
4) (d)

Set 2 Novel Extract: Eulalia!

1) (b)
2) (b)
3) (c)
4) (c)
5) (b)
6) (b)
7) (c)
8) …the vessel Bludgullet nosed shoreward, like some huge seabeast seeking its prey…

Set 3 Novel Extract: Eulalia! (2)

1) (d)
2) (d)
3) (a)
4) (a)
5) (c)
6) (b)
7) (c)
8) (c)

GRAMMAR

'He's yours,' said Mr. Arable. 'Saved from an untimely death. And may the good Lord forgive me for this foolishness.'
Fern couldn't take her eyes off the tiny pig. 'Oh,' she **whispered**. 'Oh, look at him! He's

absolutely perfect. '
She **closed** the carton carefully. First she kissed her father, then she **kissed** her mother. Then she **opened** the lid again, lifted the pig out, and **held** it against her cheek. At this moment her brother Avery **came** into the room. Avery was ten. He **was** heavily armed—an air rifle in one hand, a wooden dagger in the other.
'What's that?' he **demanded**. 'What's Fern got?'
'She's got a guest for breakfast,' **said** Mrs. Arable. 'Wash your hands and face, Avery!'

PUNCTUATION

'Oh, wow!' Lauren breathed as she looked at Cedar Creek Camp. She was stroking Twilight's neck in delight. Most of the time, Twilight looked just like any other ordinary grey pony, but when Lauren said the words of the Turning Spell he changed into a beautiful white unicorn who could talk, do magic and fly. One of his magic powers meant that when he touched his horn to a rock of rose quartz he could see anything he wanted, anywhere in the world.

UNIT 5

Set 1 Strategy: Understanding Sequence

1) (c)
2) First
3) (d)
4) (b)
5) While

Set 2 Biography: Caroline Arnold

1) (d)
2) (a)
3) (a)
4) (d)
5) (b)
6) (a)

Set 3 Interview with Caroline Arnold

1) Many of the activities she does for enjoyment.
2) (b)
3) (b)
4) (a)
5) (b)
6) (c)
7) (c)
8) (b)

GRAMMAR

1) chats
2) was
3) were
4) was
5) are
6) have
7) are

VOCABULARY

1) outstanding
2) proof
3) understood
4) moisture
5) annoy

UNIT 6

Set 1 Strategy: Cause and Effect

1) (a)
2) (d)
3) (b)

Set 2 Information Report

1) (a)
2) (a)
3) (c)
4) (d)
5) (a)
6) (c)
7) They will experience mild pain and swelling for a few hours.
8) It means that it is debatable as to whether or not it is the largest spider in the world.

Set 3 Poetry

1) It gave her a twitch
2) Because she saw the first one twitching and admired it, so she began to twitch as well.
3) (a)

4) Two Witches
5) (b)
6) (b)
7) (c)
8) (d)

GRAMMAR

1) is
2) is
3) zoom
4) is
5) have
6) are

PUNCTUATION

'I'm really looking forward to meeting the other ponies,' Twilight said.
'Yeah,' agreed Lauren. 'And all the new people. I wonder who Mel and I will be sharing our cabin with.'
'Only a few hours till we find out,' Twilight said excitedly.
Reluctantly, Lauren pulled her eyes away from the image in front of her. 'I think we should go home now. We're going to have to be up early in the morning.'

UNIT 7

Set 1 Strategy: Compare and Contrast

3) Egypt
4) Ethiopia
5) Egypt
6) Answers may vary - Both have a mid-level travel warning, both are in Africa, both use 220V electricity, both border Sudan, both speak Arabic.
7) Answers may vary - Egypt attracts more tourists whereas Ethiopia is not a popular tourist destination, Egypt has a much larger population, Ethiopia uses two types of electrical plugs.

Set 2 Historical Recount

1) (c)
2) (c)
3) (b)
4) (c)
5) By making sure it did not see its shadow.
6) Soldiers on horseback.
7) By chopping it.
8) Because he was a great leader and conquered more countries than any other leader.

Set 3 Novel

a. Because he has had a good meal and is proud of his 'heroic' exploits.
b. Unhappy.
c. (a)
d. (b)
e. (b)
f. (b)
g. Heroic, intelligent, encouraging, handsome
h. (a)

GRAMMAR

1)
a) hear
b) here
c) here

2)
a) vain
b) vain
c) vein
d) vein
e) vain

VOCABULARY

1) authority
2) devastated
3) estimate
4) evict
5) irrelevant

UNIT 8

Set 1 Strategy: Making Predictions

1) (d)
2) (b)

Set 2 Explanation

1) (d)
2) (c)

3) (b)
4) (b)
5) (b)
6) A defence strategy is the technique that someone or something uses to defend itself.

Set 3 Cloze

1) related
2) religion
3) split
4) kingdoms
5) selling
6) gradually
7) fighting
8) conquering

GRAMMAR

1) their
2) their
3) They're, their, there
4) They're
5) there
6) Teacher

PUNCTUATION

I chewed my nails all the way to Frank's. I had promised myself never to chew my nails again because I know it is not what celebrity people do, and Molly says that if we are going to get anywhere with our Celebrity Club, we must not bite our nails any more. So I had painted them with this shiny stuff which I thought looked glam and gorgeous like the real nail varnish April, my older sister, wears but it actually tastes Grim with a capital G! There is one problem I have found though. If you are truly stressed and anxious about something, you will always find a way to stop thinking about the Grim taste of the nail stuff and you will always bite your nails anyway. So that's what I was doing on the way to Frank's house.

UNIT 9

Set 1 Strategy: Word Meaning in Context

1) (d)
2) (c)
3) (b)
4) (a)
5) (d)
6) (b)

Set 2 Poem: Sir Nicketty Nox

1) (d)
2) (b)
3) (c)
4) (b)
5) (c)
6) He would get very angry.
7) (a)
8) (b)

Set 3 Recount: I survived the Titanic

1) (c)
2) (a)
3) (b)
4) (b)
5) (d)
6) (a)
7) (d)
8) (c).

GRAMMAR

1) Despite arriving very late mum and I enjoyed the concert. OR Mum and I enjoyed the concert despite arriving very late. (despite, and)

2) While dad cooked dinner my sister set the table and I vacuumed the carpet. OR My sister set the table and I vacuumed the carpet while dad cooked dinner.(while, and)

3) My teacher wouldn't let us go out to play until we finished our work. (until)

4) I tried my best but the test was just too

hard because I did not spend enough time studying.(but, because)

5) Although it was extremely hot outside, Adam insisted on playing soccer and he suffered a heat stroke. (although, and)

VOCABULARY

1) solitude
2) astute
3) Prior
4) authentic
5) devour

UNIT 10

Set 1 Strategy: Inference

1) (b)
2) (a)
3) (b)
4) (d)

Set 2 Novel: Spartan Warrior: The Fire of Ares

1) (d)
2) (a)
3) (b)
4) (a)
5) (c)
6) (d)
7) (b)
8) Answers will vary. (Lysander didn't feel very good about his new home – it was very overwhelming, intimidating and unfriendly.)

Set 3 Novel Continued: Spartan Warrior: The Fire of Ares

1) (d)
2) (b)
3) (b)
4) Answers may vary. (lifting weights, fighting, sprinting, spear practice)
5) (b)
6) (a)
7) Because he was being punished for stealing.
8) (c)

GRAMMAR

Answers will vary

1) **After we finished our homework** we all went outside to play.
2) She decided to take dance classes as **they fitted in perfectly with her schedule.**
3) **As long as I complete my chores**, I can go to the party.
4) He is coming over in the afternoon **before mum gets home from work**.
5) I will go on the excursion **if I can take a friend with me.**

PUNCTUATION

The group they came to next seemed to be playing some sort of one-against-many game. One boy stood with his back to them as others rushed in from all sides to set upon him with their bare fists and feet. 'This is to teach a Spartan how to face several adversaries at once,' said Diokles. 'On the battlefield, you can't expect our enemy to fight one-on-one.' The victim was quick on his feet, dodging and changing his position to meet his attackers. Each one was sent crashing to the floor or beaten back, but still they came. Lysander could see the single Spartan was getting tired. He panted for breath. Finally, one of the hunters managed to seize him around the middle and draw him to the ground. The others piled in too. Surely they've got him now, thought Lysander. But no! With a mighty cry, the Spartan broke free and threw the others off. He stood over them, victorious, and then walked out of the ring.

Unit 1 – Cartoon

Question	Answer
1	B
2	B
3	A
4	B
5	D

Unit 2 – Novel extract

Question	Answer
1	C
2	D
3	B
4	A
5	C

Unit 3 – Article

Question	Answer
1	C
2	C
3	B
4	C
5	B

Unit 4 – Article

Question	Answer
1	C
2	D
3	D
4	A
5	D

Unit 5 – Blog post

Question	Answer
1	B
2	D
3	B
4	C
5	C

Unit 6 – Poetry

Question	Answer
1	B
2	C
3	A
4	A
5	C
6	D

Unit 7 – Images

Question	Answer
1	B
2	B
3	C
4	A
5	B

Unit 8 – Factual Text

Question	Answer
1	D
2	C
3	A
4	B
5	B

Unit 9 – Book Review

Question	Answer
1	C
2	C
3	C
4	C
5	B

Unit 10 – Poem

Question	Answer
1	A
2	B
3	A
4	C
5	A

GENERAL ABILITY

ANSWERS

TERM 1

YEAR 4

UNIT 1

Word List

1. separate
2. saga
3. ambitious
4. dread
5. experiment(s)
6. irritate
7. sheath
8. fiction
9. pant
10. intermittent(ly)
11. satisfy
12. dismay
13. groan
14. parchment(s)
15. mottled

"he" family

1. head
2. heat
3. health
4. heaven
5. hemisphere

Using Clues

1. heart
2. hectare
3. heal
4. heel
5. heave
6. height
7. heap
8. heir
9. hear
10. heavy

Jumbled Words

1. heavy
2. health
3. hectare
4. heel
5. head

Similes

1. kite
2. rake
3. ape

Analogies

1. thieves
2. June
3. fast
4. coo
5. sorrowful

Yes or No

1. yes
2. yes
3. no
4. no
5. no

What am I?

1. heart
2. height

Circle word

1. heart
2. heal
3. hectares
4. head
5. heaped

Odd one out

1. sherry
2. play
3. eggs
4. hose
5. humans

Synonyms

1. boastful
2. blossom
3. blunt
4. bodily
5. blunder
6. foretell

Antonyms

1. cheerful
2. conserve
3. perfection
4. freedom
5. income
6. clarity

Rearranged words

1. bard 2. notion

3. overwork(ed) 4. recoil
5. word

Word Knowledge

1. far from a centre; remote.
2. to hand over an accused person to the jurisdiction where the crime was committed.
3. unwilling; not keen.

Idioms

1. e
2. a
3. d
4. b
5. c

G.A TEST

1. b
2. b (7×4=14+14)
3. b
4. a
5. d
6. a
7. d, multiples of 7
8. c
9. b
10. a
11. b, times 3 minus 2
12. d
13. c
14. a, not circular
15. a, each sides need to be 12.5kg
16. b, castles have moats to keep attackers
1. out
17. BYUB7UYC
18. NINETY
19. d
20. a

UNIT 2

Word List

1. poisonous
2. cautious
3. decree
4. tremble(d)
5. scarce
6. hover
7. clamber(ed)
8. ravenous
9. communicate
10. gallivant(ing)
11. immovable
12. compass
13. trudge
14. unwholesome
15. prophecy

"ea" family

1. each
2. east
3. earphone(s)
4. earth
5. easy

Using Clues

1. early
2. Easter
3. eager
4. earn
5. eagle
6. eat
7. eardrum
8. earthquake
9. earl
10. easel

Jumbled Words

1. eager or agree
2. earth
3. easel
4. Easter
5. early

Yes or No

1. no
2. yes
3. yes
4. no
5. no

Circle words

1. eager
2. eagles
3. eardrum
4. eat
5. east

Similes

1. bat
2. monkey
3. puppy

What am I?

1. eagle
2. Easter

Odd one out

1. apple
2. strawberry
3. soccer ball
4. scarf
5. east

Synonyms

1. substantial
2. peep
3. harmony
4. obliging
5. arctic
6. worship

Antonyms

1. merry
2. scowl
3. huge
4. illicit
5. illiterate
6. lunacy

Word Knowledge

1. -a flowing in esp. of people or things coming in
2. -a great number of people or things
   - numerous pieces of equipment, possessions, etc.

Prefixes

1. d
2. a
3. e
4. b
5. c

Confusing pairs

1. told
2. taut
3. sales
4. Yolk
5. so

Idioms

1. c
2. a
3. d
4. e
5. b

G.A TEST

1. b
2. a
3. d
4. a
5. a
6. tomato
7. a, 3x3=9
8. (outer number x 12 = inner number) 10, 73, 33, $\frac{2}{3}$, 13, 21, 11, 1
9. a
10. c
11. a
12. a
13. c
14. c
15. c, Your uncle is the brother of your father.
16. a, top row x1, x2, x3, x4, …
17. d
18. Q2XO9Z
19. a
20. b

UNIT 3

Word List

1. squelch(ed)
2. pungent
3. mist
4. endanger(ed)
5. exhaust(ed)
6. intend(ed)
7. bewilder(ed)
8. dissipat(ed)
9. wander(s)
10. wedge(d)
11. presume(d)
12. treachery

13. thrash(ed)
14. wince(d)
15. modest

"la" family

1. lamp
2. lane
3. land
4. last
5. lap(s)

Using Clues

1. language
2. large
3. lance
4. larva
5. languid
6. laser
7. landmark
8. lanky
9. landslide
10. lather

Jumbled words

1. large
2. lamp
3. last
4. laser
5. larva

Yes or No

1. no
2. no
3. no
4. no
5. yes

Circle words

1. laser
2. laps
3. languages
4. Lava
5. first, last

What am I?

1. larva
2. large

Odd one out

1. daughter
2. heat
3. Summer
4. Germany
5. arrange

Synonyms

1. order
2. aptitude
3. direct
4. diligence
5. upsetting
6. timid

Antonyms

1. b
2. a
3. e
4. d
5. f
6. c

Word Knowledge

1. not noble; shameful
2. evidence in support of something
3. persuade gently or patiently

Analogies

1. bat
2. gobble
3. sky (rhyming word)
4. leg
5. fumble (rhyming word)

Similes

1. butter
2. sheet
3. ice

Confusing pairs

1. higher
2. Quay
3. prize
4. wrapped
5. he'll

Idioms

1. d
2. e
3. b
4. c
5. a

G.A TEST

1. a
2. b
3. a
4. b, FORMAT
5. b
6. b
7. a, times 2 plus 5
8. d
9. b, only the first statement is relevant
10. b
11. a
12. COLLAR
13. b
14. a
15. d, older cars need a good warm up
16. a
17. d
18. c
19. d
20. 12 kg

UNIT 4

Word List

1. kayak
2. decipher
3. inherit
4. overwhelm(ed)
5. generous
6. ferocious
7. envelop(ed)
8. rite
9. spasm
10. grotesque
11. frequency
12. taint
13. ache
14. brim
15. lumber

"em" family

1. email
2. emerald
3. emergency
4. emotion(s)
5. empty

Using Clues

1. embarrass
2. embrace
3. emanate
4. embassy
5. emancipate
6. embellish
7. embalm
8. ember
9. embark
10. emblem

Jumbled Words

1. emanate
2. email
3. empty
4. embark
5. emotion

Yes or No

1. yes
2. yes
3. yes
4. no
5. yes

Circle Words

1. emergency
2. emotions
3. emanating
4. emancipated
5. emerald

What am I?

1. emerald
2. email

Odd one out

1. camel
2. water
3. leave
4. lose
5. Gosford

Synonyms

1. distress
2. decide
3. ancestry
4. element
5. style
6. tyrannous

Antonyms

1. f
2. e
3. a
4. c
5. b
6. d

Word Knowledge

1. harm; damage
2. not favouring one side more than the other
3. a Christmas entertainment based on a fairy-tale

Prefixes

1. d
2. e
3. a
4. b
5. c

Analogies

1. mother
2. loyal
3. happy
4. loud
5. solid

Confusing pairs

1. hart
2. phrase
3. brood
4. pleas
5. frieze

Idioms

1. d
2. e
3. a
4. b
5. c

G.A TEST

1. c
2. b
3. b
4. a, INSULATE
5. c
6. a
7. c, 16 – 4 = 3 x 4
8. d
9. b
10. c
11. d
12. SECRET
13. a
14. b
15. b, Sometimes you have t**o** sacrifice something to gain.
16. c
17. b
18. b
19. b
20. d

UNIT 5

Word List

1. nocturnal
2. marmalade
3. mosquito
4. coupon(s)
5. breadth
6. astronaut
7. vacuum
8. limb(s)
9. conscript(ed)
10. mime
11. dramatic
12. patriot
13. prestige
14. vaccine
15. luscious

"cr" family

1. crash(es)
2. crack
3. crawl
4. crew
5. cream

Using Clues

1. crab
2. credit
3. crate
4. creepy
5. cradle
6. crest
7. cramp
8. creak

9. crane
10. cricket

Jumbled words

1. crack
2. crew
3. cramp
4. creepy
5. credit

Yes or No

1. yes
2. no
3. no
4. yes
5. no

Circle Words

1. crest
2. creak
3. crates
4. cramp
5. creepy

What am I?

1. crab
2. cradle

Odd one out

1. remedy
2. boxing
3. foolish
4. hideous
5. brooding

Synonyms

1. crash
2. gouge
3. dilemma
4. hardship
5. formidable
6. eat

Antonyms

1. e
2. a
3. f
4. b
5. d
6. c

Word Knowledge

1. a brilliant display or appearance
2. endanger
3. a rich and influential business person

Prefixes

1. d
2. e
3. a
4. b
5. c

Similes

1. toast
2. rain
3. witch

Confusing pairs

1. wade
2. style
3. rows
4. staid
5. toad

Idioms

1. d
2. e
3. a
4. b
5. c

G.A TEST

1. c
2. b
3. d, (6 + 7) x 13 = 169
4. a, CLEF
5. b
6. c
7. b
8. a
9. d
10. 250mL
11. a
12. c
13. a
14. d
15. a, The mongoose emits a high pitched noise known as <u>giggling</u>.
16. b
17. d

18. d
19. b
20. d

UNIT 6

Word List

1. currant(s)
2. macaroni
3. vibrant
4. felony
5. pronounce
6. routine
7. ballroom
8. pallbearer(s)
9. Reference
10. cabinet
11. décor
12. eventually
13. implement
14. irate
15. resemble(s)

"so" family

1. soil
2. soda
3. sofa
4. softball
5. soften

Using Clues

1. soak
2. sock
3. soap
4. solar
5. soccer
6. soldier
7. soften
8. sole
9. socket
10. solo

Jumbled words

1. soldier
2. soil
3. socket
4. soccer
5. solo

Yes or No

1. yes
2. yes
3. no
4. no
5. yes

Circle words

1. solar
2. soccer
3. social
4. soil
5. solo

What am I?

1. solar
2. soldier

Odd one out

1. nice
2. tiny
3. at ease
4. evil
5. calm

Synonyms

1. logic
2. trouble
3. act
4. obstinate
5. astuteness
6. generous

Antonyms

1. a
2. d
3. c
4. f
5. e
6. b

Word Knowledge

1. skin split or cracked from cold etc.
2. clever management; artfulness
3. performing or carrying out an intention etc.

Prefixes

1. d
2. e
3. a

4. b
5. c

Analogies

1. dune
2. station
3. disorder
4. nail
5. light

Confusing pairs

1. cue
2. seed
3. guilt
4. flour
5. urn

Idioms

1. d
2. c
3. a
4. e
5. b

G.A test

1. b
2. a
3. b
4. a, SKILL
5. d
6. b
7. b
8. c
9. Scoot: 24, brother: 12
10. b
11. c
12. a
13. c
14. a
15. a, The Springbok is the national symbol of South Africa.
16. d
17. c 6×(72-60)=72
18. a
19. d
20. a

UNIT 7

Word List

1. gestured
2. smother
3. indignant
4. luxurious
5. hypnotised
6. abrupt
7. slender
8. irritating
9. absent-mindedly
10. stolid
11. placid
12. routine
13. reassured
14. cajole
15. spite

"-ould" family

1. shouldn't
2. mould
3. boulder
4. mouldy
5. shoulder

Using Clues

1. boulder
2. couldn't
3. mouldy
4. wouldn't
5. mould
6. could
7. would
8. shoulder
9. should
10. shouldn't

Jumbled Words

1. shoulder
2. would
3. mouldy
4. mould
5. boulder

True or False

1. F
2. T
3. F
4. T
5. F

What am I?

1. mould
2. shoulder

Circle word

1. mould
2. boulder
3. Should
4. could
5. Shouldn't

Odd one out

1. thorn
2. chocolate
3. Australia
4. pink
5. gravy

Synonyms

1. disorderly
2. exact
3. casket
4. liberate
5. growth
6. commander

Antonyms

1. inedible
2. tender
3. rebellious
4. incomplete
5. blessing
6. promote

Rearranged words

1. trampoline
2. Saturday
3. wallet
4. porridge
5. calculator

Word Knowledge

1. palette – a plate for artists to put paint on.
2. fraud – criminal act for financial gain
3. bunyip – a legendary creature of the Australian swamp.

Idioms

1. a. a person who always sticks to routine
2. e. to behave disobediently
3. c. stay alert and watchful
4. b. talk or give advice without any effect
5. d. a fuss or commotion

GA TEST

1. c. overweight
2. d. wolf
3. a. cooked
4. d. faucet
5. b. tea
6. a. 10
7. a. ER
8. d.
9. b. spoon
10. c. mole
11. d. 86
12. a. L
13. c.
14. d. popular
15. d. 10
16. a.
17. d. uncritical
18. a. U.S.A
19. c. 30
20. $37(37×17-592=37)

UNIT 8

Word List

1. kimono
2. resigned
3. dismay
4. tousled
5. coax
6. landlord
7. substitute
8. pursuit
9. beckoned
10. carousel
11. advertise
12. timid
13. vacant
14. niggle
15. vague

"ey" and "ay" family

1. Saturday
2. prey
3. hay
4. Stingray
5. trolley

Using Clues

1. grey
2. crayfish
3. journey
4. bray
5. Saturday
6. mayor
7. trolley
8. hay
9. disobey
10. barley

Jumbled Words

1. crayfish
2. prayer
3. stray
4. bray
5. payment

True or False

1. F
2. F
3. F
4. T
5. F

Circle words

1. hay, bray
2. prayer
3. dismay
4. stingray
5. barley

What am I?

1. stingray
2. crayfish

Similes

1. hatter
2. egg
3. child
4. swan
5. barrel

Synonyms

1. soundless
2. discolour
3. beginner
4. daub
5. ponder
6. shanty

Antonyms

1. d. forbid
2. a. detain
3. e. polite
4. f. shameless
5. c. polluted
6. b. withdraw

Word Knowledge

1. morsel – a small amount.
2. debris – dirt. dust, loose material from broken buildings, etc.
3. dispersed– to spread widely; to drive or send off in various directions; OR to separate & move apart in different directions.

Abbreviations

1. c. for example
2. d. secretary
3. b. equation
4. a. society
5. e. examination

Confusing pairs

1. flour
2. faint
3. tide
4. steel
5. toll

Idioms

1. d. be plentiful or easily obtained
2. e. a short distance
3. a. in all directions
4. c. slim and healthy
5. b. act rashly

GA TEST

1. a. inevitable
2. b. cannon
3. c. remained

4. b. historical
5. a. hump
6. d. 6
7. a. AGE
8. b. an ellipse
9. b. (blonde)
10. c
11. a. 50
12. b.
13. a. Rome
14. d
15. c. 39
16. c. 154
17. b. boldness
18. b. leather
19. b.
20. b. 3240 L

UNIT 9

Word List

1. gawk
2. ascend
3. exceeding
4. intricate
5. prohibited
6. turnstile
7. prescribe
8. infuriated
9. restrain
10. withdraw
11. defiant
12. parched
13. fumble
14. earnest
15. hardships

"re" family

1. carnivore
2. retrace
3. return
4. measure
5. reply

Using Clues

1. scare
2. rare
3. carnivore
4. endure
5. metre
6. reverse
7. injure
8. cure
9. return
10. stare

Jumbled words

1. carnivore
2. pure
3. endure
4. hectare
5. measure

True or False

1. F
2. F
3. F
4. T
5. F

Circle words

1. retrace
2. pure
3. dare
4. measure
5. metre

What am I?

1. hectare
2. carnivore

Odd one out

1. Henry
2. watermelon
3. metre
4. listen
5. wood

Synonyms

1. dauntless
2. safeguard
3. neglect
4. encrust
5. uninhabited
6. mount

Antonyms

1. d. including
2. f. tranquil
3. a. praise

4. b. pride
5. c. disperse
6. e. danger

Word Knowledge

1. certainty – without a doubt.
2. confectionary – lollies, sweets.
3. scholarly – intelligent, learned, educated.

Confusing pairs

1. beach
2. hear
3. coarse
4. cellar
5. guessed

Idioms

1. c. be dismissed from a job
2. e. ready for action or work
3. d. continuously, over a long period
4. b. slightly unwell
5. a. be hallucinating

GA Exercises

1. d.
2. a.
3. d.
4. b.
5. c.
6. c.
7. b.
8. d.
9. b. (Cats are believed to have nine lives)
10. a. (innkeeper)
11. b. (The differences are 14 and 6)
12. 11
13. c.
14. a.
15. 600 km/hr
16. c.
17. b.
18. a.
19. c.
20. $660

UNIT 10

Word List

1. anticlimax
2. bedraggled
3. din
4. encased
5. furtive
6. reluctant
7. bridle
8. hazy
9. capering
10. swathe
11. brink
12. insistent
13. curtly
14. oblivious
15. solemn

"ble" family

1. drivable
2. flexible
3. scribble
4. legible
5. edible

Using Clues

1. terrible
2. disable
3. lovable
4. edible
5. drivable
6. scribble
7. fumble
8. capable
9. flexible
10. comfortable

Jumbled Words

1. impossible
2. fumble
3. flexible
4. incredible
5. trouble

True or False

1. F
2. T
3. T
4. T
5. T

Circle Words

1. terrible
2. legible
3. impossible
4. trouble
5. disable

What am I?

1. edible
2. incredible

Odd one out

1. opposite
2. tank
3. flower
4. Queensland
5. lemon

Synonyms

1. contort
2. pleasing
3. guiltless
4. convict
5. parched
6. college

Antonyms

1. d. sensible
2. f. deny
3. a. owe
4. c. detain
5. b. forgive
6. e. sweet

Word Knowledge

1. rectify – fix, make right, correct.
2. dormant – inactive.
3. gallant – brave, courageous.

Similes

1. industrious
2. keen
3. bright
4. gentle
5. stately

Confusing pairs

1. been
2. bale
3. idol
4. scent
5. martial

Idioms

1. b. become interesting or exciting
2. d. terrify
3. e. there is practically no limit
4. c. a difficult time doing something
5. a. first of all

GA exercises

1. a.
2. d.
3. b.
4. d. $(8\times6) \div 2 = 3\times8$
5. c.
6. a.
7. d.
8. d.
9. c. the thesaurus is a very useful source for antonyms and synonyms.
10. c. (problem)
11. c. v
12. c.
13. d.
14. b.
15. 14 light bulbs.
16. b.
17. a.
18. 20
19. c.
20. c.

Essential Mathematics

ANSWERS

TERM 1

YEAR 4

UNIT 1

Place Value

1.

a. 2, 3, 1, 4 **b.** 3, 4, 2, 1
c. 2, 4, 1, 3 **d.** 2, 4, 1, 3
e. 3, 2, 1, 4

2.

a. 6 422 **b.** 8 750
c. 1 013 **d.** 2 206
e. 4 006

3.

a. Hundreds, 400 **b.** Ones, 9
c. Tens, 0 **d.** Hundreds, 300
e. Thousands, 6000 **f.** Tens, 60

4.

a. 60, 4 **b.** 3 000, 900, 40, 1
c. 4 000, 100, 80, 5 **d.** 2 000, 0, 0, 3
e. 5 000, 0, 30, 9

5.

a. 89 **b.** 206 **c.** 534
d. 8 770 **e.** 6 502

6.

a. 266 **b.** 7 319 **c.** 9 407
d. 2 021 **e.** 1 021

7.

a. 5 229 **b.** 1 031 **c.** 9 044
d. 7 470 **e.** 2 002

8.

a. 7 543, 3 457 **b.** 9 742, 2 479
c. 6 542, 2 456 **d.** 8 751, 1 578
e. 8 752, 2 578

Rounding Off

1.

a. 50 **b.** 260 **c.** 1 300
d. 3 860 **e.** 5 010

2.

a. 1 500 **b.** 2 200 **c.** 8 800
d. 4 500 **e.** 6 000

3.

a. 1 000 **b.** 1 000 **c.** 4 000
d. 8 000 **e.** 5 000

4.

a. 400 + 300 = 700
b. 700 + 400 = 1 100
c. 800 – 500 = 300
d. 900 – 600 = 300
e. 500 + 400 = 900
f. 1 000 – 400 = 600

Addition

1.

a. 7 110 **b.** 7 322
c. 7 133 **d.** 8 160
e. 2 331 **f.** 1 643
g. 3 216 **h.** 8 413

2.

	answer	**estimation**
a.	5 489	5 500
b.	7 424	7 400
c.	5 917	5 900
d.	5 621	5 600
e.	757	800
f.	1 504	1 500
g.	1 601	1 600
h.	6 949	7 000

3. (top to bottom, from left to right)

a. 6, 9 **b.** 5, 4, 5
c. 4, 1, 5, 9 **d.** 1, 0, 0
e. 5, 5, 5, 6 **f.** 3, 3, 9
g. 6, 0 **h.** 7, 3, 6

4.

+	**526**	**330**	**831**	**1006**
712	1238	1042	1543	1718
680	1206	1010	1511	1686
888	1414	1218	1719	1894

5.

a. $76.90 **b.** $ 188.15
c. $ 156.80 **d.** $ 265.05
e. No

6. 8300, 4611

Subtraction

1.

a. 3 306 **b.** 1 035 **c.** 2 189
d. 6 717 **e.** 5 584 **f.** 7 917
g. 3 396 **h.** 1 868

2. (top to bottom, from left to right)

a. 6, 3 **b.** 2, 8 **c.** 4, 8, 9
d. 6, 4 **e.** 3, 2, 3 **f.** 8, 2, 7
g. 1, 2 **h.** 8, 8, 1

3.

Across:

1. 362 **5.** 222 **7.** 35
8. 350 **10.** 23 **12.** 402
14. 234 **15.** 364 **16.** 351

Down:

2. 623 **3.** 125 **4.** 33
6. 236 **9.** 522 **11.** 334
13. 291

4.

	Ring	Bracelet	Necklace	Watch	Locket
Selling price	**$3100**	**$2750**	**$1760**	**$510**	**$75**
Cost price	**$2835**	**$1986**	**$898**	**$395**	**$48**
profit	**$715**	**$764**	**$862**	**$115**	**$27**

5.

a. 2623 **b.** 3203 **c.** 2221
d. 5212

6.

a. 5077 **b.** 6632 **c.** 1261
d. 5930

Quick Questions

A.

1. four thousand and sixty-eight
2. 131
3. 9 732
4. 849
5. 104
6. 1 300
7. 593
8. 7 000
9. 123, 1213, 1321
10. False

B.

a. six thousand, one hundred and fifty-six
b. four thousand, seven hundred and seventy-one
c. nine thousand, six hundred and ten
d. one hundred and eighty seven
e. four thousand, two hundred and thirty three

UNIT 2

Multiplication

1.

a. 30 boys **b.** 6 cars
c. 9 bikes **d.** 7 bags
e. 7 dogs

Revising 3 Digit Multiplication

1.

a. 3388 **b.** 3861
c. 4644 **d.** 4039
e. 4392 **f.** 3040
g. 245 **h.** 434
i. 573

2.

a. 3 × 50 = 150, 144
b. 5 × 70 = 350, 360
c. 7 × 70 = 490, 476
d. 7 × 230 = 1610, 1638
e. 6 × 200 = 1200, 1182
f. 9 × 150 = 1350, 1332

(* from left to right)

3.

a. 4, 7 **b.** 8, 1
c. 3, 0 **d.** 6
e. 1, 9, 9 or 0, 9, 2 **f.** 2, 6

4 Digit Multiplication

1.

a. 3108 **b.** 9900
c. 17430 **d.** 24892
e. 29984 **f.** 36054
g. 48216 **h.** 15480

2.

a. 5 **b.** 5
c. 8 **d.** 5, 3
e. 7, 6 **f.** 7, 5

Multiplication by Tens

1.

a. 3780 **b.** 14240
c. 8100 **d.** 17990
e. 21120 **f.** 56070
g. 81420 **h.** 132450
i. 109120 **j.** 92610
k. 101550 **l.** 169520

Extended Multiplication by 2 Digit Numbers

1.

a. 93, 4650, 4743
b. 106, 1590, 1696
c. 324, 3240, 3564
d. 248,62, 1860, 62, 2108
e. 43,43, 1290,43, 1333
f. 188,2, 1880, 20, 2068
g. 72,(3,24), 1680,(70,24),1752
h. 92, (2,46), 2300,(50,46), 2392
i. 153,(9,17), 680, (40,17),833

Contracted Form

1.

a. 1610 **b.** 3082
c. 3312 **d.** 1512
e. 1539 **f.** 2067

2.

a. 32 **b.** 65
c. 26 **d.** 27
e. 35 **f.** 19

3.

a. 36, 3, 12 **b.** 72, 6, 12
c. 240, 12, 20 **d.** 600, 20, 30

Quick Questions

A.

1. 8406
2. 10734, 10744, 10754
3. 917
4. 9000
5. 108
6. 1600
7. 36000
8. 0
9. 3.4
10. 8

B.

1. $(5 \times 100) - (6 \times 7) = 458$
2. $(49 \div 7) + (8 \times 2) = 23$
3. $(15 + 9) \times 3 \div 8 = 9$
4. $11.9 + 6 - 9.3 = 8.6$
5. $5^2 \times (4 \times 1) = 100$
6. $(22 \div 2) \times 12 + 8 = 140$

UNIT 3

Division Strategies

1.

a. 5 **b.** 4 **c.** 6
d. 5 **e.** 6 **f.** 7
g. 9 **h.** 6 **i.** 4
j. 7

2.

a. 6 **b.** 18 **c.** 9
d. 4 **e.** 3 **f.** 2
g. 12

3.

a. 6 **b.** 4 **c.** 5
d. 7 **e.** 6

Divisibility Table

1. 14, 100, 248, 152, 18, 396, 225, 1 233, 28, 112, 3 856, 50, 275, 2 275, 248, 1 480, 2 344, 1 560, 135, 3 348, 990, 1 040

2 Digit Divisions with Remainder

1.

a. 15r2 **b.** 15r1 **c.** 17r2
d. 12r2 **e.** 13r1 **f.** 12r4
g. 4r3 **h.** 6r2 **i.** 3r3
j. 24r3 **k.** 14r4 **l.** 24r1

3 Digit Divisions

1.

a. 121 **b.** 231 **c.** 231r2
d. 420 **e.** 223 **f.** 326
g. 141 **h.** 141 **i.** 113
j. 131 **k.** 131 **l.** 112

2. Remainder 3: 738, 731
Remainder 4: 298, 144
Remainder 6: 384, 965
No remainder: 385, 945
Remainder 1: 722, 750

Division Involving Zeros in the Answer

1.

a. 208 **b.** 307 **c.** 105
d. 102 **e.** 101 r 1 **f.** 104 r 3

2.

a. 843 **b.** 912 **c.** 815
d. 982 **e.** 387 **f.** 607

4 Digit Divisions

1.

a. 1 620	**b.** 3 144	**c.** 1 554
d. 537	**e.** 755	**f.** 671
g. 1 008	**h.** 1 007	**i.** 303

2.

a. 1 350 r 5	**b.** 3 141 r 2	**c.** 963
d. 755	**e.** 535	**f.** 1 237
g. 424 r 4	**h.** 1 750	**i.** 1 632 r 2

3.

a. 288	**b.** 288	**c.** 873
d. 873	**e.** 567	**f.** 567
g. 873	**h.** 567	**i.** 554

The Word; G**OOD DI**V**IDIN**G

Dividing 3 Digit Numbers by Tens

1.

a. 37	**b.** 43	**c.** 6
d. 11	**e.** 11	**f.** 9

2.

a. 68 r4	**b.** 73 r7	**c.** 86 r6
d. 71 r1	**e.** 40 r7	**f.** 89 r9
g. 17 r10	**h. 7** r30	**i.** 15 r40
j. 12 r30	**k.** 9 r20	**l.** 12 r50

3.

a. 250, 5, 50	**b.** 400, 5, 80
c. 320, 4, 80	**d.** 750, 5, 150
e. 1 500, 5, 300	**f.** 640, 4, 160

Quick Questions

A.

1. $2.50
2. 18
3. 3200
4. 0130
5. Right Angle or 90^{o}
6. No
7. 60
8. 1
9. 0.02

B.

a. 84, 35
b. 96, 24, 84, 72, 36
c. 24, 36, 96, 84, 72
d. 24, 36, 96, 84, 72
e. 36, 72
f. 121, 36
g. 50

UNIT 4

Decimals

1.

a. tenths	**b.** hundredths
c. tenths	**d.** tens
e. hundreds	**f.** ones
g. tenths	**h.** hundredths
i. thousands	**j.** tenths

2.

a. 765.6	**b.** 846.54
c. 6 223.82	**d.** 9 503.07
e. 198.9	

3.

a. 6.7	**b.** 6.27
c. 16.14	**d.** 60.052
e. 60.002	**f.** 16.2

Comparing the Size of Decimals

1.

a. 0.4, 0.5, 0.7, 0.8
b. 0.9, 1.0, 1.4, 1.9
c. 3.6, 3.9, 4.1, 7.2
d. 11.6, 12.9, 13.0, 13.3
e. 14.6, 14.74, 16.2, 17.36
f. 101.8, 125.4, 126.9, 143.7
g. 5.42, 27.291, 315.92, 415.29
h. 17.16, 27.061, 171.6, 711.6

2.

a. True	**b.** True	**c.** True
d. False	**e.** True	

3.

a. 0.35	**b.** 0.86	**c.** 0.325
d. 0.007	**e.** 0.07	

4.

a. 1.5	**b.** 0.34	**c.** 21.3
d. 0.9	**e.** 0.155	

Addition and Subtraction of Decimals

1.

a. 8.7	**b.** 5.92
c. 9.60	**d.** 35.86
e. 4.521	**f.** 53.899
g. 45.071	**h.** 56.193

2.

a. 46.38 **b.** 30.42
c. 82.22 **d.** 1028.38
e. 94.165

Subtracting Decimals

1.

a. 3.3 **b.** 4.39
c. 24.74 **d.** 25.87
e. 15.17 **f.** 84.66
g. 58.87 **h.** 67.87
i. 47.559 **j.** 60.479
k. 428.31 **l.** 53.18

2.

a. 14.89 **b.** 59.88
c. 51.03 **d.** 66.25
e. 14.2

(* from left to right)

3.

a. 7 **b.** 7, 3
c. 7, 3 **d.** 8, 4

Multiplying Decimals by Powers of 10

1.

a. 7 **b.** 16 **c.** 86
d. 9.9 **e.** 23.4 **f.** 1 970
g. 9 **h.** 914.3 **i.** 14 200
j. 920

2. table

	×10	**×100**	**×1000**
17.243	172.43	**1724.3**	**17243**
0.061	**0.61**	**6.1**	**61**
9.136	**91.36**	**913.6**	**9136**
5.12	**51.2**	**512**	**5120**
87.62	**876.2**	**8762**	**87620**

Dividing Decimals by the Power of 10

1.

a. 7.38 **b.** 0.983
c. 0.0067 **d.** 0.01121
e. 0.043 **f.** 4.712
g. 0.7404 **h.** 0.0421
i. 0.6193 **j.** 5.549

2. Table

	÷10	**÷100**	**÷1000**
a) 142.7	**14.27**	**1.427**	**0.1427**
b) 63.98	**6.398**	**0.6398**	**0.06398**
c) 3.21	**0.321**	**0.0321**	**0.00321**
d) 8234	**823.4**	**82.34**	**8.234**
e) 98	**9.8**	**0.98**	**0.098**

Converting Decimals into Fractions

1. **a.** $\frac{4}{5}$ **b.** $\frac{1}{10}$ **c.** $\frac{1}{4}$
d. $\frac{3}{40}$ **e.** $2\frac{4}{5}$ **f.** $3\frac{17}{20}$
g. $38\frac{9}{20}$ **h.** $6\frac{7}{500}$ **i.** $\frac{23}{100}$
j. $9\frac{65}{100} = 9\frac{13}{20}$

Converting Fractions into Decimals

1.

a. 0.26 **b.** 0.169
c. 0.05 **d.** 0.007
e. 0.88 **f.** 1.536

2.

a. 4.4 **b.** 16.9
c. 289.23 **d.** 2.1
e. 12.03 **f.** 95.09

3.

a. 0.875 **b.** 0.5
c. 0.125 **d.** 0.4
e. 0.75 **f.** 0.375

Decimal Currency

1.

a. $ 12.09 **b.** $3.05
c. $ 7.54 **d.** $ 6.19
e. $5.82

2. $ 51.81

Quick Questions

A.

1. 1700
2. $\frac{83}{8}$
3. Yes

4. Cone
5. 1.5, 5, 10.05, 50
6. $\mathbf{1\frac{3}{4}}$
7. 2:30 PM
8. Wednesday
9. 5.93
10. 20

B.

×1000	×100	×10	÷10	÷100	÷1000
54360	5436	543.6	5.436	0.5436	0.05436
635100	63510	6351	63.51	6.351	0.6351
5740	574	57.4	0.574	0.0574	0.00574
10680	1068	106.8	1.068	0.1068	0.01068
110621	11062.1	1106.21	11.0621	1.10621	0.110621
60050	6005	600.5	6.005	0.6005	0.06005
73240	7324	732.4	7.324	0.7324	0.07324
9090	909	90.9	0.909	0.0909	0.00909

UNIT 5

Equivalent Fractions

1.

a. 6 **b.** 4 **c.** 8 **d.** 4

Simplifying Fractions

1.

a. $\frac{1}{3}$ **b.** $\frac{2}{3}$ **c.** $\frac{5}{18}$
d. $\frac{7}{17}$ **e.** $\frac{3}{10}$ **f.** $\frac{3}{8}$
g. $\frac{2}{3}$ **h.** $\frac{1}{8}$

Comparing Fractions

1.

a. $\frac{2}{7},\frac{5}{7},\frac{6}{7}$ **b.** $\frac{3}{10},\frac{7}{10},\frac{4}{5}$
c. $\frac{1}{10},\frac{2}{5},\frac{1}{2}$ **d.** $\frac{1}{12},\frac{2}{12},\frac{5}{12}$

2.

a. $\frac{4}{8},\frac{3}{8},\frac{1}{4}$ **b.** $\frac{8}{9},\frac{5}{9},\frac{2}{9}$
c. $\frac{4}{5},\frac{1}{2},\frac{3}{10}$ **d.** $\frac{5}{7},\frac{5}{14},\frac{2}{7}$

Mixed Numbers and Improper Fractions

1.

a. improper b. proper
c. improper d. proper
e. mixed f. improper
g. mixed h. proper
i. mixed

2.

a. $8\frac{2}{3}$ **b.** $1\frac{3}{4}$ **c.** $5\frac{5}{12}$
d. $2\frac{1}{7}$ **e.** $6\frac{6}{7}$ **f.** $4\frac{1}{7}$

3.

a. $\frac{41}{5}$ **b.** $\frac{39}{9}$ **c.** $\frac{23}{3}$
d. $\frac{11}{3}$ **e.** $\frac{25}{6}$ **f.** $\frac{64}{11}$

4.

a. $\frac{5}{2},2\frac{1}{2}$ **b.** $\frac{7}{4},1\frac{3}{4}$
c. $\frac{3}{2},1\frac{1}{2}$ **d.** $\frac{5}{2},2\frac{1}{2}$

Addition and Subtraction of Fractions

1.

a. $\frac{3}{4}$ **b.** $\frac{3}{5}$ **c.** $\frac{3}{4}$
d. $\frac{4}{5}$ **e.** $\frac{7}{8}$ **f.** $\frac{5}{6}$

2.

a. $1\frac{5}{8}$ **b.** $1\frac{1}{4}$ **c.** $1\frac{3}{4}$ **d.** $1\frac{3}{8}$

3

a. $\frac{1}{2}$ **b.** $\frac{1}{2}$ **c.** $\frac{1}{3}$
d. $\frac{1}{3}$ **e.** $\frac{1}{5}$ **f.** $\frac{1}{5}$

4

a. $\frac{4}{5}$ **b.** $\frac{3}{4}$ **c.** $\frac{5}{8}$

d. $\frac{2}{3}$ **e.** $\frac{3}{5}$

5.

a. $3\frac{3}{10}$ **b.** $2\frac{1}{8}$ **c.** $1\frac{1}{12}$

d. $1\frac{1}{2}$ **e.** $3\frac{3}{7}$ **f.** $2\frac{7}{8}$

6.

a. $\frac{1}{10}$ **b.** $1\frac{5}{12}$ **c.** $\frac{1}{3}$

d. $1\frac{1}{5}$ **e.** $\frac{2}{9}$ **f.** $1\frac{4}{11}$

Fractions with Different Denominators

1.

a. $\frac{3}{4}$ **b.** $\frac{5}{8}$ **c.** $\frac{1}{8}$

d. $\frac{7}{8}$ **e.** $\frac{1}{4}$ **f.** $\frac{3}{8}$

g. $\frac{7}{8}$ **h.** $\frac{3}{8}$

i. 1

2.

a. $\frac{1}{2}$ **b.** $1\frac{1}{12}$ **c.** $1\frac{2}{15}$

d. $\frac{13}{24}$ **e.** $\frac{2}{5}$ **f.** $\frac{5}{24}$

Fractions with Mixed Numbers

1.

a. 4 **b.** $6\frac{1}{12}$ **c.** $5\frac{5}{6}$

d. $5\frac{7}{12}$ **e.** $7\frac{3}{4}$ **f.** $6\frac{1}{3}$

2

a. $1\frac{17}{18}$ **b.** $2\frac{11}{15}$ **c.** $2\frac{3}{10}$

d. $3\frac{11}{14}$ **e.** $1\frac{7}{8}$ **f.** $5\frac{1}{20}$

Fractions and Quantities

1

a. 18 **b.** 14 kg **c.** $63

d. 77 g **e.** 50 m **f.** 0 kg

Quick Questions

A.

1. 210
2. 6.15
3. 2479
4. 86543
5. 10, 12, 14
6. 0.505
7. $14\frac{3}{4}$
8. True
9. $\frac{27}{100}$
10. 50

B.

1. >
2. =
3. >
4. >
5. <
6. >
7. =
8. =

C.

1. False
2. True
3. False
4. True
5. True
6. False
7. False

UNIT 6

Prisms

1.

a. triangular pyramid
b. cylinder
c. rectangular prism
d. pentagonal prism
e. sphere
f. hexagonal prism

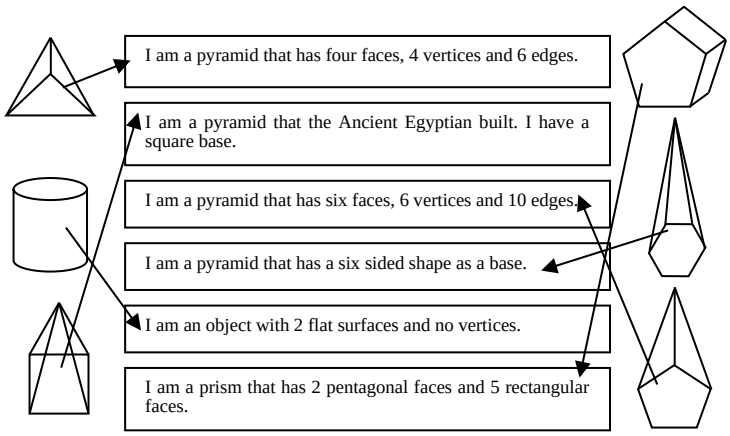
Faces, Vertices and Edges

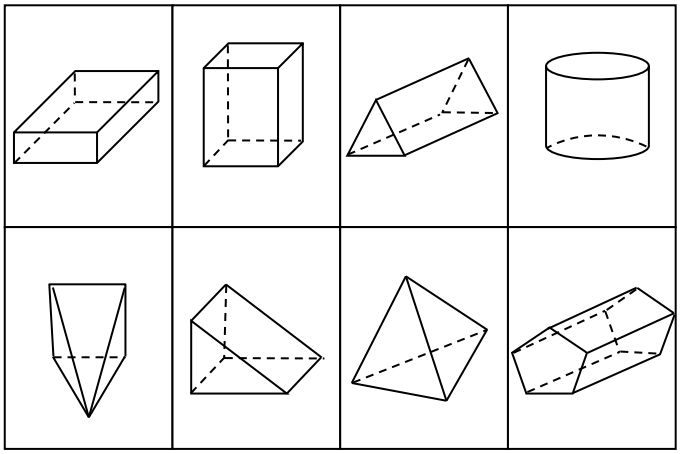
1.

	Name	Faces	Vertices	Edges
a.	**hexagonal pyramid**	7	7	12
b.	**cube**	6	8	12
c.	**pentagonal prism**	7	10	15
d.	**triangular prism**	5	6	9
e.	**Square pyramid**	5	5	8

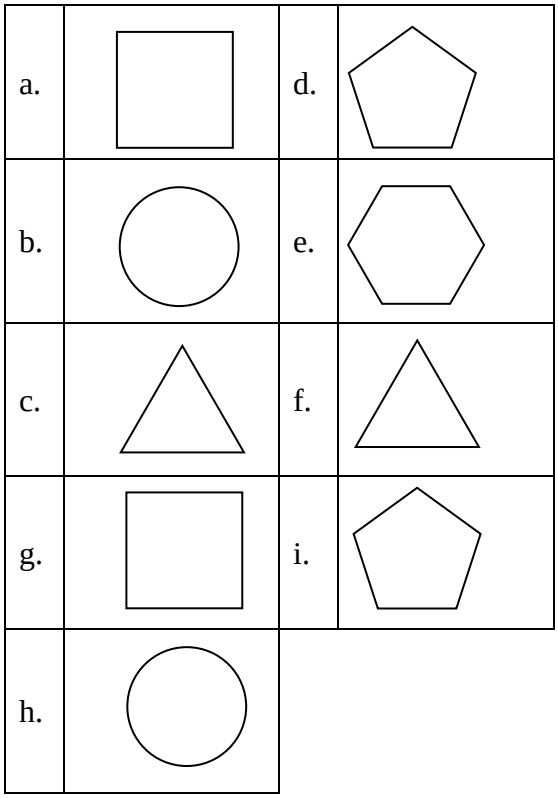
2.

3.





4.

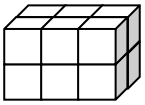


Top, Front and Sides Views

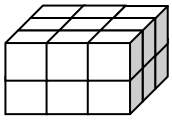
a. D H G A F C E
b. G J A B F K C E L
c. D A B H I G J

2.

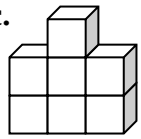
a.



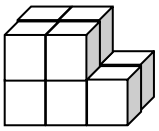
b.



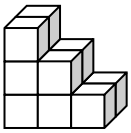
c.



d.



e.



3.

a. cube
b. rectangular prism
c. square pyramid
d. cone
e. triangular prism

Nets

1.

Forms a 3D Shape	a)	b)	c)	e)	g)
Does not form a 3D shape	d)	f)			

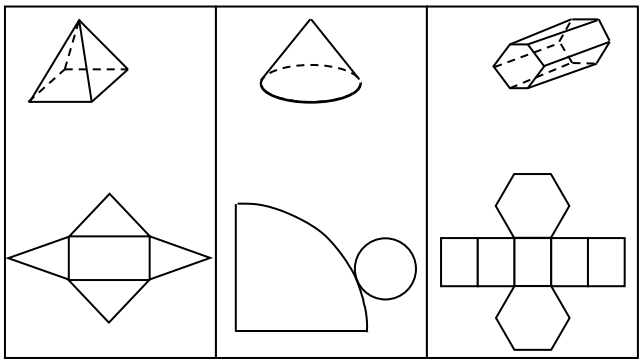
2.

a. B
b. E
c. A
d. F
e. D
f. C

3.

a. triangular pyramid
b. cube
c. triangular prism
d. pentagonal prism
e. cylinder
f. rectangular pyramid

4.



Quick Questions

A.

1. 28 cm
2. hundreds
3. 48
4. 40
5. 32
6. 189
7. 210
8. 7.59
9. 0.2
10. $ 18

B.

Solids		Number of		
		Faces	Vertices	Edges
a)	Cube	6	8	12
b)	Square Pyramid	5	5	8
c)	Rectangular Prism	6	8	12
d)	Cylinder	0	0	0
e)	Cone	0	0	0
f)	Triangular Pyramid	4	4	6

UNIT 7

Number Pattern

1.

a. 28, 25 Subtract 3 from the previous number
b. 73, 77 Add 4 to the previous number
c. 15, 18 Add 3 to the previous number
d. 4, 2 Half the previous number
e. 16, 22 Add one extra number each time
f. 8, 13 Add 2 previous numbers

2.

a. 6, 9, 12, 15, 18, 21, 24
b. 22, 24, 26, 28, 30, 32, 34
c. 10, 11, 12, 13, 14, 15, 16
d. 30, 36, 42, 48, 54, 60, 66

3.

a. 8, 10, 12, 13 Add 6
b. 24, 48, 72, 84 Multiply by 6
c. 20, 14, 7, 4 Subtract 12
d. 15, 18, 21 Divide by 5
e. 13, 14, 15 Add 8

Hundreds Chart

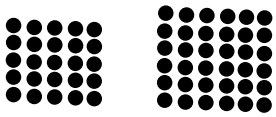
1.

1	2	3	~~4~~	5	6	7	8	9	10
11	12	13	~~14~~	15	16	17	18	19	20
21	22	23	~~24~~	25	26	27	28	29	30
31	32	33	~~34~~	35	36	37	38	39	40
41	42	43	~~44~~	45	46	47	48	49	50
51	52	53	~~54~~	55	56	57	58	59	60
61	62	63	~~64~~	65	66	67	68	69	70
71	72	73	~~74~~	75	76	77	78	79	80
81	82	83	~~84~~	85	86	87	88	89	90
91	92	93	~~94~~	95	96	97	98	99	100

Square and Triangular Numbers

1.

a. 1 , 4 , 9 , 16 , 25 , 36 , 49 , 64 , 81
b. 100
c.



2.

a. 1, 3, 6, 10, 15, 21, 28, 36, 45
b. 1, 3, 6, 10
c. 1+2+3+4+5 = 15
1 + 2 + 3 + 4 + 5 + 6 = 21
1 + 2 + 3 + 4 + 5 + 6 + 7 = 28
1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 = 36
1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 = 45

Repeating Patterns

1.

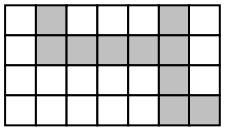
a. ○● ◺ **b.** ●, ○

c. c , c **d.** ☆ ☆

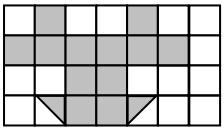
e. ◯ ● **f.** S , D

Symmetry

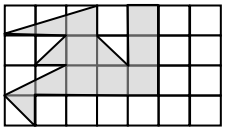
1. a.



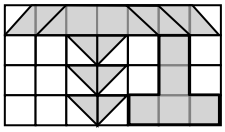
b.



c.



d.



Tessellation

Marker to check

Quick Questions

A.

1. 4 880
2. False
3. 63
4. 800
5. >
6. 28
7. 140
8. 23.46
9. $\frac{4}{5}$
10. 52 cm

B.

1. 81, 80, 79
2. 102, 101, 100
3. 60, 55, 50
4. 28, 32, 36
5. 110, 130, 150
6. 13, 16, 19

UNIT 8

Measuring Length

1.

a. kilometres
b. metres
c. centimetres
d. millimetres
e. metres
f. millimetres
g. millimetres / centimetres
h. kilometres

Converting Units

1. A = 1.4 , 14 B = 2.5 , 25
C = 3.5 , 35 D = 4.8 , 48

2 a. 30 mm b. 55 mm
c. 217 mm d. 120 mm
e. 68 mm f. 3000 mm

3 a. 5 cm b. 38.5 cm
c. 7.2 cm d. 8.9 cm
e. 200 cm f. 9.8cm
g. 1204 cm h. 624 cm

4 a. 7 m b. 58.13 m
c. 12 m d. 4.6 m
e. 2.61 m f. 11.15 m
g. 17000 m h. 4.56 m

5 a. 6 km b. 1.4 km
c. 0.88 km d. 0.75 km
e. 8 km f. 2.31 km

6.

a. 90 mm
b. 500 cm
c. 2000 m
d. 1.5 km
e. 9 m
f. 6 m
g. 35200 cm
h. 450 mm

7.

a. 10 cm
b. 75 cm
c. 40 cm
d. 20 cm
e. 60 cm
f. 25 cm

Comparing Lengths

1 a. 900 cm
b. 0.82 cm
c. 92 mm
d. 320 cm
e. 250 mm

2 a. 4.6 km
b. 68 m
c. 38 cm
d. 158 mm
e. 1.58 km

3 a. 19 cm, 20 cm, 250 mm, 9 m
b. 290 cm , 2 950 mm , 3 m , 3.1 m
c. 3.5 m , 4 000 mm , 401 cm , 4 000 cm

Scaled Map

a. 10 km
b. 15 km
c. 6 km – 7 km
d. 12 km (answers may vary)
e. 14 km
f. Cary to Monlo

Perimeter

1 a. 27 cm
b. 32 cm
c. 30 cm
d. 54 cm
e. 47 cm
f. 51 cm

2 a. 38 cm
b. 42 cm
c. 44 cm
d. 70 cm
e. 48 cm

3 a. 18
b. 14
c. 22
d. 14
e. 10

4 a. (missing lengths: BC = 7 cm, DC= 6cm, FG = 4 cm)
P = 50 cm

b. (missing lengths: AH = 2cm, FE = 21cm)
P = 60 cm

Quick Questions

A.

1. $\frac{12}{10} = \frac{6}{5} = 1\frac{1}{5}$
2. 40
3. 40 cm
4. octagon
5. 0.072
6. $3456
7. 200
8. 5.05
9. $\frac{51}{8}$
10. 90

B.

1. 52 cm
2. 34 cm
3. 22 cm
4. 40 cm

UNIT 9

The Square Metre

1 a. m^2 b. cm^2 c. m^2
d. m^2 e. cm^2 f. m^2
g. cm^2

Estimating Area

1 a. 13 b. 16 c. 9.5
d. 9 e. 17 f. 12

2 a. 9 - 9.5
b. 8 - 9 (answers may vary)
c. 8 - 9 (answers may vary)

Area of Shapes with Straight Sides

1 a. 33 cm^2 b. 64 cm^2
c. 26 cm^2 d. 52 cm^2
e. 60 cm^2 f. 16 cm^2

2 a. 120 cm^2 b. 160 cm^2
c. 60 m^2 d. 150 mm^2
e. 24 m^2

3 a. 4 cm b. 9 cm
c. 10 cm d. 13 cm
e. 12 cm f. 7 m

4 a. 11 cm b. 5 m
c. 35 cm d. 112 cm^2
e. 7 m

Area of a Triangle

1 a. 32 cm^2 b. 36 cm^2
c. 21 cm^2 d. 45 cm^2

Composite Areas

1 a. 185 m^2 b. 42 cm^2
c. 49 cm^2 d. 26 m^2
e. 10 m^2 f. 16 m^2

2 a. 60 m^2 b. 298 cm^2
c. 72 m^2 d. 216cm^2

Surface Areas

1 a. 17200 cm^2 b. 21200 cm^2
c. 14800 cm^2 d. 22800 cm^2

2 a. 396cm^2 b. 108 cm^2

Quick Questions

A.

1. 2.04
2. $\frac{1}{4}$
3. 25%
4. 11
5. $0.77
6. 0.963
7. 255 minutes
8. 0.1296
9. 940 mm
10. 49

B.

a. 20, 10
b. 40, 20
c. 12, 6
d. 30, 15
e. 18, 9
f. 24, 12

UNIT 10

Table of Units of Time

1 a. 36 b. 56 c. 96
d. 360 e. 120 f. 13
g. 12 h. 4 i. 9

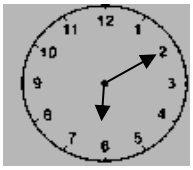
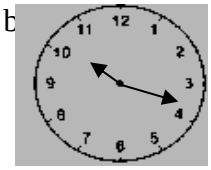
Analogue Clocks and Digital Clocks

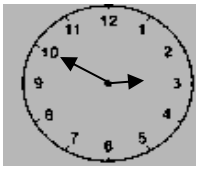
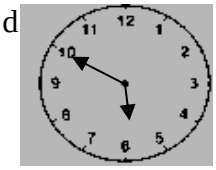
1. a. 5:03 b. 8:27
c. 12:45 d. 7:38

AM and PM Notation – 12 Hours Clock

1 a. 10 hours 30 minutes
b. 10 hours 50 minutes
c. 7 hours
d. 9 hours
e. 9 hours 15 minutes

24 Hour Time

1. a.  b 

c.  d 

2 a. 1420 b. 2305
c. 2210 d. 1955

3 a. 3:00 AM b. 9.30 AM
c. 1.55 PM d. 6.42 PM
e. 11.41 PM f. 8.27 PM
g. 7.32 PM h. 10.45 AM

4 a. 5.40 AM, 0811, 6.25 PM
b. 8.19 AM, 1186, 10.20 PM
c. 0730, 0748, 8.35 AM
d. 1008, 10.09 AM, 10.25 AM
e. 1.06 AM, 1.06 PM, 1426
f. 1109, 1114, 1511

5. a. 8 hrs. 53 mins.
b. 4 hrs. 45 mins.
c. 8 hrs. 24 mins.
d. 16 hrs. 45 mins.
e. 2 hrs. 50 mins.

6.

a. 0830 b. 0900
c. 1000 d. 1100
e. 1200 f. 1430
g. 1530 h. 1600
i. 1630 j. 1700
k. 1730 l. 1800
m. 1830 n. 1900
o. 1930 p. 2100
q. 2200 r. 2300

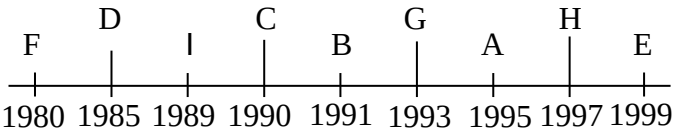
Timetables

1. a. 1348 (1:48)
b. 23 minutes
c. 1400 (2 PM)
d. 1435 (2:35 PM)
e. 6

2. a. 6 hrs. 30 mins.
   b. i) 5 hrs. 20 mins.
      ii) 2 hrs. 3 mins.
      iii) 56 mins.
   c. 4:24 AM
   d. 2:47 PM
   e. 1:39 AM

Timeline

1.



2.
   a. 44 years
   b. 60 years

Time Zone

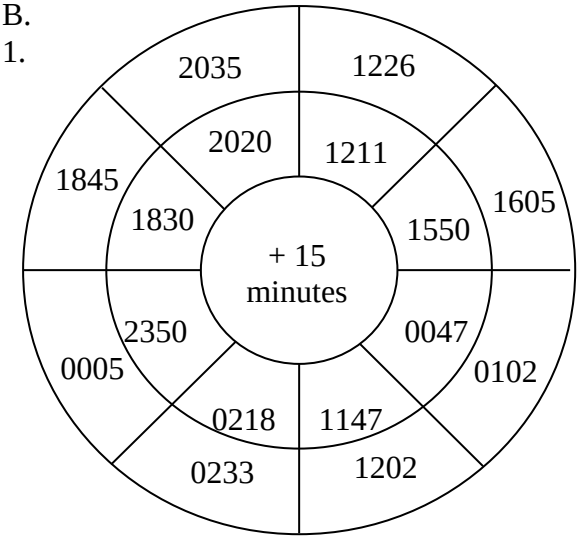
1.

a. 0630, 0700	b. 0800, 0930
c. 1300, 1500	d. 1400, 1600
e. 1730, 1800	f. 1630, 1830
g. 2000, 2130	

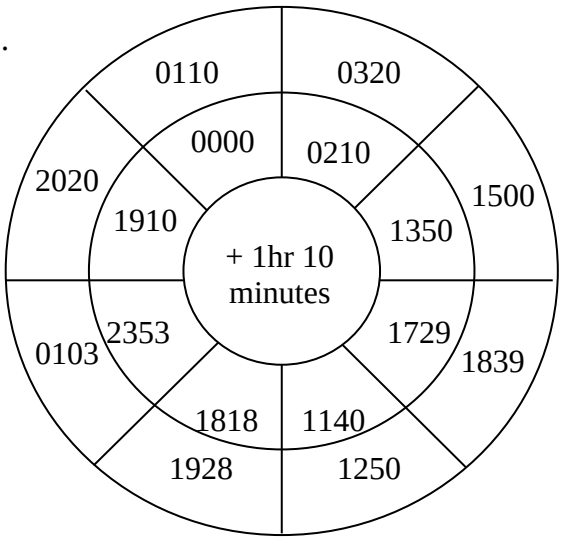
Quick Questions

A.
1. 0.25
2. June
3. triangular prism
4. 27 cm^3
5. $0.80
6. 8 metres
7. 4 900
8. September, October, November
9. 13th
10. 12

B.
1.



2.



Enrich Maths

ANSWERS

Term 1

YEAR 4

UNIT 1

Problem Solving

1. Yes, 9cm left
2. 5395
3. $4489
4. 115 students
5. 2041
6. 5060
7. 10, 20, 40, 70
8. $17
9. 906
10. 1140 on the second day.

Extension

1. +8, ×2, -10, /3
2. +8, ×2, -10, /3
3. 17, 34, 24
4. 11, 22, 12, 4
5. 20, 40, 30, 10
6. 36, 88, 78, 26
7. 24, 32, 54, 18
8. 21, 29, 58, 16
9. 27, 35, 70, 60
10. 30, 38, 76, 66

Travelling

1.

a. 35 km **b.** 18 km
c. Chriss Cross **d.** 22, 13

1. 53 810 m
2. Anfernee, by 6 096 m (46 033 - 39 937)
3. 55 347 m, Through LaMarcus' Ridge + Barramundi Village, More by 8 500 m.
4. 17 878 m
5. 94 130 m Palace Towers to LaMarcus' Ridge to Barramundi Village to Beckham's Oval. (53 810 m + 31 006 + 9 314), 57 351 m Longer.

UNIT 2

Problem Solving

1. 380
2. 568
3. $34.40
4. 8
5. $153
6. 108
7. 95
8. 7cm
9. 360
10. 10 years old

Extension

1.

a. 2384 **b.** 2272 m^2
c. 5416 **d.** $14152

Spooty Island

2.

a. 198m **b.** 258m
c. 424m **d.** 2240m
e. 1060m **f.** 2760m

Level 4

1. 97200 cm^3 / 0.0972 m^3
2. 13788 cm^3
3. 1296 (12 ×6 × 18)
4. 10188 cm^3
5. 2 cartons of item 6, $0.06
6. 3, 4, 2, 1
7. 1
8. (2 × 2.97) + (6 × 1.78) = $16.62

UNIT 3

Problem Solving

1. 12250 times
2. $13.21
3. $64
4. 24 m
5. **5. a.** 576 km **b.** $28.80
6. 148 km
7. 9 rows, 5 people had to stand.
8. 45 km
9. 1410
10. $924

Extension

1. **a.** 84, 76, 138, 610
   b. 90, 110, 680
   c. 95, 170, 315
   d. 63, 81, 72, 213, 105
   e. 116, 220, 208, 340, 132

Puzzle Fun

2.

a. 10	**b.** 8	**c.** 12
d. 24	**e.** 2	**f.** 4
g. 30	**h.** 11	**i.** 5
j. 40	**k.** 9	**l.** 3
m. 2	**n.** 16	**o.** 90
p. 32	**q.** 100	**r.** 64
s. 2	**t.** $\frac{1}{5}$ or 0.2	

3.

a. 8	**b.** 16	**c.** 15
d. 15	**e.** 6	**f.** 16
g. 45	**h.** 9	**i.** 12
j. 25		

UNIT 4

Problem Solving

1. 10.64
2. $19.55
3. $253.10
4. 0.369 m
5. 91 cm^2
6. 159 cm^2
7. 152.4 kg
8. 197.57 m
9. $1.40
10. 7.67 kg

Extension

1. $6
2. $22
3. 4.4m
4. 5m 71 cm
5. 6: 43 AM
6. 8.7 km
7. $9.90
8. 98 km
9. 5
10. 80
11. 42 mins

UNIT 5

Problem Solving

1. $\frac{3}{8}$
2. $140
3. $21\frac{3}{4}$ cm
4. 75
5. 1 twelfth left (= $\frac{1}{12}$)
6. $105
7. 156
8. 375 min
9. 48
10. $5\frac{3}{4}$

Extension

1.

a. $\frac{2}{5}$, 40 %	**b.** 0.45 , $\frac{9}{20}$
c. $\frac{3}{5}$, 60 %	**d.** 0.32, $\frac{8}{25}$
e. 0.47, $\frac{47}{100}$	**f.** $\frac{23}{25}$, 92%
g. 0.9, $\frac{9}{10}$	**h.** $\frac{1}{5}$, 20 %
i. 0.12, $\frac{3}{25}$	**j.** 0.21, $\frac{21}{100}$
k. 0.25, $\frac{1}{4}$	**l.** $\frac{3}{4}$, 75 %

2. 187.5 g
3. 15
4. 52.5 L
5. Basketball game $4 \times \frac{1}{4}$ hours
6. 12.875 kg or $12\frac{7}{8}$ kg
7. 39666.66667 joules or $39666\frac{2}{3}$ joules
8. 56 L

UNIT 6

Problem Solving

1. a. d)
   b. 148 cm^2
2. a.34 m
3. b.16 m^2
4. 54 cm^2
5. 120 cm
6. 60
7. 28
8. 6 cm^2
9. 29 kg
10. 152 cm^3

Extension

1.
   a. 5, 8, 4
   b. 0, 0, 0
   c. 0, 0, 0
   d. 4, 5, 3
   e. 0, 0, 0

2.
   a. square pyramid
   b. square prism
   c. cylinder

3.
   a. False
   b. True
   c. False
   d. True
   e. False

4. 24, 6+10+8
5. Student's own answer
6. 40%

UNIT 7

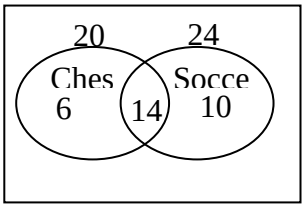
Problem Solving

1. 91 (1st one : 13 hand shakes with others, 2nd one : 12 new hand shakes , …last one: already had hand shakes with others no new hand shake)
   13+12+11+10+9+8+7+6+5+4+3+2+1+0= 91
2. 9
3. $\frac{6}{8} = \frac{3}{4}$
4. 348 = (6+8+10+12)× 9 +(6+8+10)
5. black

Extension

1.
   a. 8 , 10 , 12 , 13 (x + 6 = y)
   b. 8 , 16 , 24 , 28 (4x = y)
   c. 10 , 15 , 30 , 35 (5x = y)
   d. 24 , 48 , 72 , 84 (6x = y)
   e. 25 , 225 , 256 , 324 (x^2 = y)
   f. 58 , 73 , 12 , 29 (x – 9 = y)

2. 14 play both



30

30 – 20 = 10
30 – 24 = 6
30 – (10 + 6) = **14**

3. $300

	Painting	+	Frame	=	$420
-	Painting	-	$\frac{1}{2}$ frame	=	$360
			$\frac{1}{2}$ frame	=	$60

∴ painting = $300

OR

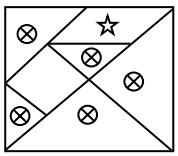
P + F = 420 → P = 420 – F
P + F/2 = 360 → 2P = 720 – F

Therefore, 840 – 2F = 720 – F
F = 120
P = 300

4. 60

H = 5 M
H = 240 + M
→ 5M = 240 + M
4M = 240
M = 60 stamps

5. 4 more

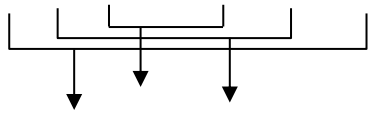


☆ no right angle = 1
⊗ one right angle = 5
4 more

6.
a. Out = 10 In
b. Out = 5 In
c. Out = 2 In + 1
d. Out = 3 In – 2

7.  × 3
 × 2
 × 1
 × 2
= 12 combinations

8. 5050
1 + 2 + 3 +. . .+ 98 + 99 + 100 =



101 + 101 + 101 . . .
= 101 ×50
= **5050**

9.
week 1 = $2
week 2 = $6
.
.
.
week 9 = **$13 122**

10. 11 weeks

11.

165 days = 495 cm **16th Dec**
∴ Snail reaches 5m in the day on 166th day = **17th Dec**

UNIT 8

Problem Solving

1. 300 m
2. P = 0.2 km
3. 162.6 cm
4. 505.2 cm
5. 225 cm
6. 2.88 m
son's height: (252 – 180) = 72,
man's height: 180 – 72 = 108
combined: 108 × 2 + 72 = 288 cm
7. 250 m
8. 0.3 mm
9. 0.742 km
10. 123.2 m

Extension

1. 9
2. 137 cm (nearest cm)
3.
a. length = 6 cm
b. length = 6 cm
c. length = 5.4 cm

4. lengthbreadth = 10 cm
$3 \times l \times 3 \times b = 9 \times l \times b$
$= 9 \times 10\ cm^2$
$= 90\ cm^2$

5. $l \times b = 60$, $l - b = 7$
$(b + 7) \times b = 60$, ($60 = 1\times60, 20\times30, 4\times15, 5\times12, 6\times10$). Only two numbers 5 and 7 meet the condition.
b = 5 m, l = 12 m

6.
a. 4×4 = 16
b. 4×3 = 12

7. (working backwards)

$(62-3)\times 2 = 118\, people, 118-24 = 94\, people$

$94\, people = \frac{2}{3}, \quad \therefore \frac{3}{3} = 141\, people$

Or

$(P - \frac{1}{3}P + 24) \div 2 + 3 = 62, (P - \frac{1}{3}P + 24) \div 2 = 59$

$(P - \frac{1}{3}P + 24) = 118,\ \frac{2}{3}P = 94, P = 94 \times \frac{3}{2} = 141$

8. $6\frac{6}{7}$ km/hr
$24 \div 8 = 3$
$24 \div 6 = 4$
$\frac{48}{3+4} = 6\frac{6}{7}\, km/hr$

9. 6 sec

The whole train will stay only last100m of the tunnel.

$60\,\text{km/h} = 1\,\text{km/min}$

$60\,\text{km/h} = \frac{1}{60}\,\text{km/sec} = \frac{1000}{60} = \frac{50m}{3\text{sec}}$

$$\text{time} = \frac{0.1\text{km}}{\frac{50m}{3\text{sec}}} = 100m \times \frac{3\text{sec}}{50m} =$$

$$= 6\text{sec}$$

10.

a. 9 cm

b. 6

11.

12 cm candle

2 hr 30 min = 150 min

$\frac{150\,\text{min}}{12\,cm}$ = 12.5 min to burn 1 cm

20 cm candle

20 × 12.5 min = 250 min

= **4 hr 10 min**

12.

a.

$$2\pi r = \pi D$$

$$= \frac{22}{7} \times 8$$

$$= \frac{176}{7}\text{cm}$$

b.

$$2\pi r = 12 \times \frac{22}{7}$$

$$= \frac{264}{7}\text{cm}$$

c.

$$\pi r^2 = \pi\,\text{cm}^2$$

$$r = 1$$

$$\therefore \text{circumference} = 2\pi$$

$$= \frac{44}{7}\text{cm}$$

d.

$$r = \text{sides of square} = 12\text{cm}$$

$$\therefore 2\pi r = 75\frac{3}{7}$$

13. difference between 0345 and 1712

= 13 hours 27 minutes

difference between 2208 and 0142

=3 hours 34 minutes

sum = 17 hours 1 minutes

14.

$$\frac{90000}{1.5} = 60000\,\text{revolutions}$$

UNIT 9

Problem Solving

1. 1400 ha
2. 81 cm^2
3. 18 ha
4. 400
5. 175000 cm^2
6. 30 cm^2
7. 9 : 1
8. 12 cm
9. 25.5 m^2
10. 26 m

Extension

1.

a) 4

b) 9

c) 24

2.

a) 240

b) 480

3. 96 m^2

4.

24	36	48	60	72
24	54	96	150	216

5.

a. (3×5×2) + (5×1×2) + (3×1×2) = 46 cm^2

b. 46 cm^2

c. 46 cm^2

6. First: l = 4 cm, w = 3 cm, h = 2cm
   Second: l = 9 cm, w = 4 cm, h = 3cm

7. A: 4 cm^2 B: 9 cm^2
   C: 4 cm^2 D: 4 cm^2
   E: 9 cm^2 F: 4 cm^2
   G: 49 cm^2

8.
Jason's Score = $3 \times 7 + 3 \times 5 = 36$
Smith's Score = $7 + x = 37$
Score from Area B (x) = $37 - 7 = 30$
Darts in Area B (x) = $\frac{30}{5} = 6$

9. $72\ m^2$
$12 \times 2 \times 2 + 6 \times 2 \times 2 = 72\ m^2$

10. $59\ cm^2$,
$(8 \times 8) - (1 \times 5) = 59$

11.
$\frac{594}{19.8} = 30$

12.
Area = $\frac{1}{2} \times 6 \times 12$
$= 36\ m^2$
Total Cost of Tiles = $40 + 30 = \$70 / m^2$
$\therefore$ cost = $36 \times 70 = \$2\ 520$

UNIT 10

Problem Solving

1) 12 mins.
2) 7:57 AM
3) 2 mins. 48 secs.
4) Friday
5) 15 hrs.
6) 744 times
7) 12:05
8) 5:15
9) Tuesday
10) 8 hrs.

Extension

1. Speed = $\frac{30}{\frac{1}{3}} = 90$ kmph
Distance = $90 \times 1.5 = 135$ km

2.
Time Taken in First Walk = $\frac{16}{8} = 2$ hrs.
Time Taken in Second Walk = $\frac{24}{6} = 4$ hrs.
Total Time Taken = $3 + 2 + 4 = 9$ hours
$\therefore$ Finishing Time = 3 PM

3. $7 \times 2 \times 24 = 336$

4. 18th April
5. 28th May
6.
a. 7:15 AM
b. When it is 14:50 in New York, it is 01:20 in Mumbai the next day.
$\therefore$ Time of Flight = 7 hrs. 5 mins.
c. difference between Singapore and London = 8 hours
difference between New York and Sydney = 16 hours
$\therefore$ Sum = 24 hours

7.
Real Time: 3:25
Mirror: 8:35
After Mistake: 7:40

8.
a. Circumference = $12\frac{4}{7}$ km
Time Taken = $12\frac{4}{7} \div 150$
5 mins. 2 seconds

b. 5 mins. 1.7 seconds $\times$ 5 = 25 mins. 9 secs.

9. Time Taken = $\frac{480}{80} = 6$ hours
Time of Arrival = 3:30 PM

10.
per hour $\frac{1}{2}$ of the pool is filled and $\frac{1}{10}$ of the pool is leaked.
$\therefore$ in one hour: $\frac{1}{2} - \frac{1}{10} = \frac{2}{5}$ of the pool is filled
$\therefore$ time taken to fill the pool = 2.5 hrs.

11.
$\text{speed} = \frac{180}{0.25} = 720\,\text{kmph}$
$\text{time needed} = \frac{140}{720} = 11\,\text{min}\,40\,\text{sec}$

Creative Problem Solving

ANSWERS

YEAR 4

UNIT 1

Venn Diagram

1. 9 **2.** 7
3. 11 **4.** 20

Counting Shapes

1. 48
2. 28

General Problems

1. $800
2. 120
3. 24
4. $5.40
5. 28
6. 180
7. 14

UNIT 2

Grocery Shopping

1.

Item	Cost
Carrots 2 kg	$1.60
Bananas 1 kg	$1.30
Apples 1.5 kg	$1.35
Grapes 3 kg	$3.45
Total	$7.70

2.

Item	Cost
Watermelon 2	$2.60
Corn 1 kg	$2.10
Grapes 2 kg	$2.30
Apples 2.5 kg	$2.25
Total	$9.25

Surface Area

1. 224 cm^2
2. 1102 m^2
3. 642 cm^2

General Problems

1. $300 **2.** 2 km
3. 9:10 PM **4.** 75
5. Z -$150, J -$300 **6.** 64 m
7. $448 **8.** $240

UNIT 3

Averages

1. 28°C
2. 141 cm
3. 30.5 days

Maths Tests

Score	71	66	69	58	63

1. Mary, Lucy, Brian, Troy, Craig
2. 16

General Problems

1. 14th August
2. 747m^2
3. 22
4. $13 631
5. $27 900
6. 8 minutes
7. 375L
8. $130

UNIT 4

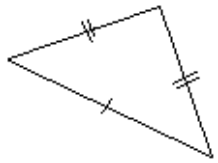
Creating Number Sentences

Suggested Answers

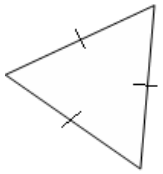
1. $(24 \times 3) \div (8 - 2) = 12$
2. $(4 \times 10) - (28 \div 2) = 26$
3. $(4 \times 10) - (15 + 5) = 20$
4. $(7 \times 3) + (15 + 52) = 88$
5. $(12 \times 4) - (8 + 4) = 36$

Triangles

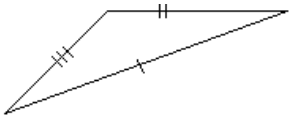
1. Isosceles



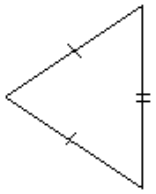
2. Equilateral



3. Scalene



4. Isosceles



General Problems

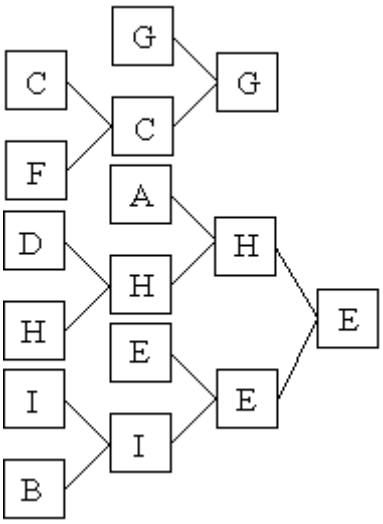
1. 300 grams
2. Zaria – 14, Beth – 7, Shane – 11
3. $10.50
4. $800
5. 29.3°c
6. 10:12 PM
7. 7m
8. 27

UNIT 5

Lines of Symmetry

1. 4
2. 8
3. 2
4. 3
5. Infinity

Tree Diagrams



General Problems

1. $52
2. 75
3. $63
4. 48 days
5. $69 120
6. $604
7. The individual cans at 90c
8. 420 grams

UNIT 6

Rectangular Number Patterns

1.

20	32	36	44	60
5	8	9	11	15

2.

1	9	25	49	100
1	3	5	7	10

3.

27	31	37	42	46
19	23	29	34	38

4.

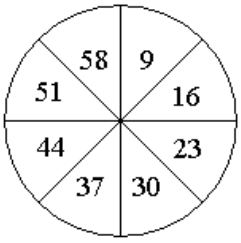
12	15	35	43	44
25	28	48	56	57

5.

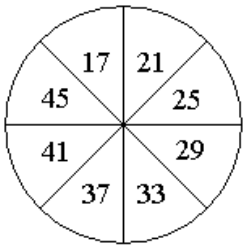
127	139	141	152	212
99	111	113	124	184

Number Pies

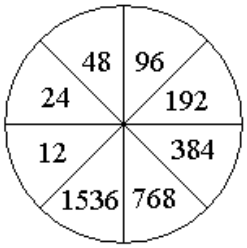
1.



2.



3.



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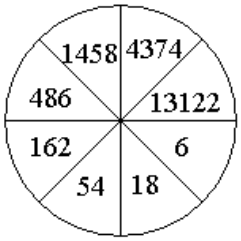


Ans: 6 or 1536

General Problems

1. 504 kg
2. $1 800
3. 2 720
4. 45
5. 128 hours
6. 19.8m
7. 8 PM
8. 64
9. a) 60 m^2, b) 24 m^2

UNIT 7

Seating Plans

Sharon	William	Carmen
Charlotte	Russel	Mary
Daren	Lee	Elizabeth

Reflections

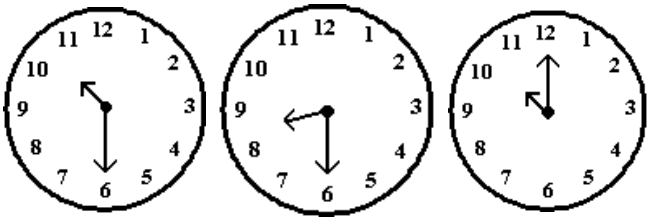
1. B
2. C
3. A
4. D

General Problems

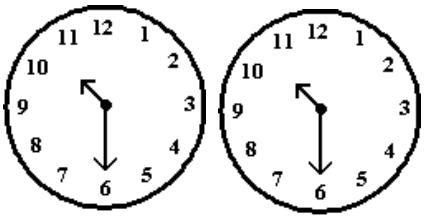
1. $39
2. 60 km
3. $403
4. 426
5. a) 175 km b) $35
6. 22 years old
7. 86
8. 5

UNIT 8

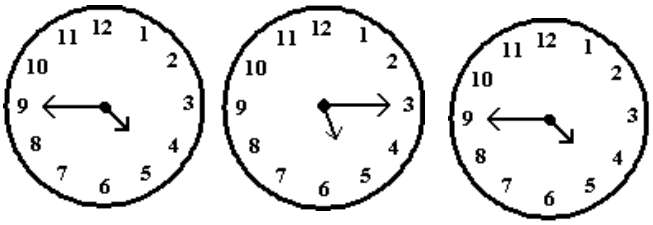
Time Zones



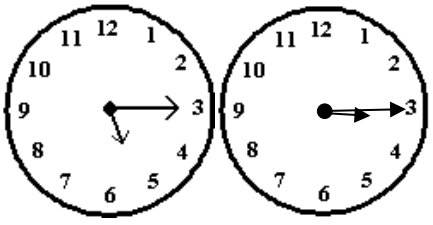
Sydney **Perth** **Adelaide**



Melbourne **Hobart**



Adelaide **Canberra** **Darwin**



Sydney **Perth**

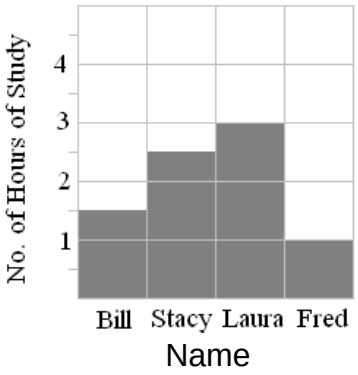
General Problems

1. 12
2. $2000
3. 12 cm
4. 81 m^2
5. 800 mL
6. $459
7. 13 kg
8. 5175
9. 200
10. 1/4

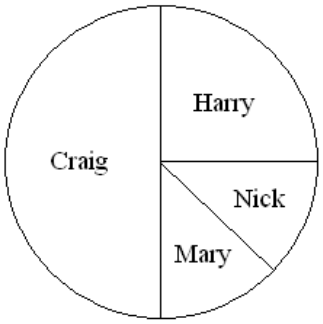
UNIT 9

Building Graphs

1.

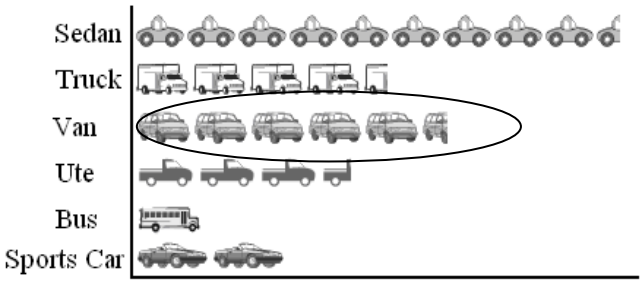


2.



Picture Graphs

1. 38
2. 14
3. 22
4. a. 22
b.



General Problems

1. 36000L
2. 929
3. $12.60
4. 32°
5. $2800
6. 50°
7. 20
8. 2

UNIT 10

Percentages

1. 2/5, 40%
2. ½, 50%
3. 4/5, 80%

Spinning Wheels

Marker check that:
1. ½ of circle is coloured blue
2. ¼ of circle is coloured red
3. More than 9 sections of the circle are numbered less than 10.

General Problems

1. $2.15
2. 2 886 kilometres
3. 426
4. $5 490
5. $75
6. $896
7. $654
8. $8 534

Mental Maths

ANSWERS

YEAR 4

UNIT 1

Day 1

(1) 1272
(2) 1132
(3) 1572
(4) 1221
(5) 1154
(6) 1252
(7) 873
(8) 751
(9) 1148
(10) 1240

Day 2

(1) 314
(2) 740
(3) 630
(4) 1018
(5) 866
(6) 89726
(7) 9445
(8) 11828
(9) 4162
(10) 5967

Day 3

(1) 7357
(2) 6249
(3) 5472
(4) 4627
(5) 2285
(6) 629
(7) 2031
(8) 2092
(9) 3321
(10) 3117

Day4

(1) 606
(2) 1546
(3) 189
(4) 2173
(5) 1009
(6) 1912
(7) 687
(8) 81
(9) 3716
(10) 5723

Day 5

(1) 5910
(2) 0853
(3) 1498
(4) 3820
(5) 2023
(6) 3359
(7) 3080
(8) 0909
(9) 1063
(10) 2539

Day 6

(1) 825
(2) 10356
(3) 11266
(4) 1254
(5) 439
(6) 3421
(7) 7261
(8) 6297
(9) 1545
(10) 01286

UNIT 2

Day 1

(1) 20
(2) 33
(3) 65
(4) 75
(5) 222
(6) 80
(7) 72
(8) 212
(9) 182
(10) 576
(11) 345
(12) 584
(13) 76
(14) 696
(15) 372
(16) 891

Day 2

(1) 220
(2) 570
(3) 1040
(4) 2590
(5) 860
(6) 5680
(7) 930
(8) 3960
(9) 1250
(10) 2720
(11) 5040
(12) 2610
(13) 1140
(14) 1380
(15) 4650
(16) 2120

Day 3

(1) 705
(2) 1001
(3) 388
(4) 3065
(5) 840
(6) 1124
(7) 5384
(8) 2541
(9) 3565
(10) 3699
(11) 6672
(12) 8991
(13) 2412
(14) 1659
(15) 4326
(16) 7120

Day 4

(1) 1870
(2) 4620
(3) 15960
(4) 20500
(5) 44870
(6) 27750
(7) 15280
(8) 56580
(9) 20280
(10) 36880
(11) 18220
(12) 52380
(13) 64620
(14) 72270
(15) 5670
(16) 31290

Day 5

(1) 209
(2) 368
(3) 980
(4) 528
(5) 1836
(6) 1344
(7) 2541
(8) 2624
(9) 987
(10) 2822

Day 6

(1) 4672
(2) 6308
(3) 6624
(4) 6068
(5) 2610
(6) 4672
(7) 4402
(8) 616
(9) 4606
(10) 9801

UNIT 3

Day 1

(1) 16
(2) 18
(3) 31
(4) 38
(5) 7
(6) 27
(7) 12
(8) 24
(9) 9
(10) 49
(11) 12
(12) 22
(13) 10
(14) 16
(15) 13
(16) 21

Day 2

(1) 14 r 1
(2) 121
(3) 16 r 1
(4) 109
(5) 15 r 1
(6) 91
(7) 113 r 3
(8) 7 r 1
(9) 39 r 2
(10) 452
(11) 134 r 2
(12) 66
(13) 10 r 3
(14) 101
(15) 17 r 1
(16) 142

Day 3

(1) 4
(2) 3 r 8
(3) 67
(4) 9
(5) 5 r 63
(6) 8 r 70
(7) 5 r 5
(8) 3 r 3
(9) 5
(10) 4
(11) 5
(12) 5 r 41
(13) 12
(14) 1 r 46
(15) 11
(16) 21

Day 4

(1) 1683
(2) 990
(3) 1280
(4) 1302 r 1
(5) 1222
(6) 632
(7) 1111
(8) 1420 r 3
(9) 2400
(10) 1203
(11) 484 r3
(12) 1000
(13) 1294 r 2
(14) 399 r7
(15) 2327
(16) 127 r 5

Day 5

(1) 391
(2) 360 r 5
(3) 910
(4) 77 r 10
(5) 74 r 47
(6) 115 r 3
(7) 490
(8) 197 r 20
(9) 65
(10) 255 r 6
(11) 39 r 67
(12) 444
(13) 203
(14) 114
(15) 100
(16) 120

Day 6

(1) 203
(2) 10
(3) 16
(4) 17 r 1
(5) 398 r 7
(6) 2327
(7) 701
(8) 11
(9) 12
(10) 101
(11) 10 r 3
(12) 1294 r 2
(13) 13
(14) 109
(15) 11 r 5
(16) 1151 r 3

UNIT 4

Day 1

(1) 2.8
(2) 10.6
(3) 23.8
(4) 29.7
(5) 47.8
(6) 265.7
(7) 132.65
(8) 241.23
(9) 42.87
(10) 363.39
(11) 47.88
(12) 189.63

Day 2

(1) 47.0
(2) 32.9
(3) 306.4
(4) 395.1
(5) 58.5
(6) 60.4
(7) 344.8
(8) 592.1
(9) 94.7
(10) 137.8
(11) 143.8
(12) 334.0

Day 3

(1) 7.67
(2) 22.22
(3) 77.72
(4) 904.23
(5) 334.32
(6) 9.84
(7) 70.28
(8) 552.6
(9) 23.65
(10) 16.34
(11) 31.07
(12) 1747.11

Day 4

(1) 0.1
(2) 4.6
(3) 4.9
(4) 8.3
(5) 243.7
(6) 95.5
(7) 442.6
(8) 572.2
(9) 6.7
(10) 50.0
(11) 7.1
(12) 56.4

Day 5

(1) 35.19
(2) 6.88
(3) 188.46
(4) 39.26
(5) 795.63
(6) 27.60
(7) 23.17
(8) 4.09
(9) 8.85
(10) 11.66
(11) 503.32
(12) 781.46

Day 6

(1) 8.52 km
(2) 70.6L
(3) 188.9
(4) 175.98
(5) 657.11
(6) 25.77 km
(7) 125.78
(8) 255.84 km
(9) 3.72
(10) 165.83

UNIT 5

Day 1

1) $2\frac{2}{5}$ 2) $4\frac{1}{7}$ 3) $2\frac{3}{4}$
4) $1\frac{1}{3}$ 5) $4\frac{1}{2}$ 6) 6
7) $1\frac{7}{12}$ 8) $1\frac{1}{2}$ 9) $2\frac{1}{4}$
10) $2\frac{5}{9}$ 11) $1\frac{3}{4}$ 12) $2\frac{1}{2}$
13) $1\frac{1}{3}$ 14) $2\frac{1}{6}$ 15) $1\frac{7}{8}$
16) $2\frac{1}{10}$

Day 2

(1) 11 2) 2 3) 4
4) 12 5) 20 6) 6
7) 6 8) 4 9) 10
10) 5 11) 10 12) 16
13) 18 14) 40 15) 14
16) 12

Day 3

1) 1 2) $1\frac{1}{3}$ 3) 1
4) $\frac{2}{3}$ 5) $\frac{2}{5}$ 6) 1
7) $\frac{6}{7}$ 8) $\frac{3}{4}$ 9) $\frac{8}{9}$
10) $1\frac{3}{7}$ 11) $2\frac{1}{2}$ 12) 1
13) $\frac{1}{3}$ 14) $\frac{3}{4}$ 15) $\frac{4}{5}$
16) $\frac{8}{9}$

Day 4

1) $\frac{1}{2}$ 2) $\frac{5}{9}$ 3) $\frac{4}{7}$
4) $\frac{11}{13}$ 5) $\frac{1}{8}$ 6) $\frac{2}{3}$
7) $\frac{1}{2}$ 8) $1\frac{2}{7}$ 9) $\frac{3}{11}$
10) $\frac{9}{19}$ 11) $\frac{1}{6}$ 12) $\frac{1}{2}$
13) $\frac{3}{5}$ 14) $\frac{3}{7}$ 15) $\frac{1}{3}$
16) $\frac{1}{3}$

Day 5

1) $3\frac{1}{4}$ 2) 1 3) $1\frac{1}{3}$
4) $1\frac{1}{10}$ 5) $\frac{13}{18}$ 6) $\frac{2}{3}$
7) $\frac{5}{6}$ 8) 2 9) $\frac{19}{24}$
10) $\frac{9}{14}$ 11) $\frac{11}{23}$ 12) $\frac{5}{9}$
13) $\frac{1}{2}$ 14) 1 15) $\frac{7}{29}$
16) $\frac{2}{3}$

Day 6

1) $1\frac{12}{17}$ 2) $1\frac{1}{2}$ 3) $2\frac{2}{9}$
4) 1 5) $1\frac{1}{63}$ 6) $2\frac{3}{34}$
7) $\frac{19}{24}$ 8) $1\frac{1}{12}$ 9) 2
10) $\frac{1}{2}$ 11) $\frac{5}{16}$ 12) $\frac{19}{56}$
13) $\frac{1}{2}$ 14) $\frac{1}{6}$ 15) $1\frac{1}{34}$
16) $\frac{2}{5}$

UNIT 6

Day 1

1. $\frac{1}{4}$
2. $\frac{1}{2}$
3. $\frac{1}{6}$
4. $\frac{2}{3}$
5. $\frac{1}{2}$
6. $\frac{1}{3}$
7. $\frac{7}{8}$
8. $\frac{3}{8}$
9. $\frac{3}{4}$
10. $\frac{2}{5}$

Day 2

1. $\frac{1}{2}$
2. $\frac{1}{4}$
3. $\frac{1}{3}$
4. $\frac{1}{5}$
5. $\frac{1}{7}$
6. $\frac{3}{7}$
7. $\frac{3}{14}$
8. $\frac{3}{4}$
9. $\frac{4}{9}$
10. $\frac{3}{5}$

Day 3

1. $1\frac{5}{7}$
2. $1\frac{1}{9}$
3. $1\frac{2}{3}$
4. $1\frac{7}{8}$
5. $1\frac{9}{16}$
6. $1\frac{1}{2}$
7. $1\frac{3}{7}$
8. $1\frac{2}{3}$
9. $1\frac{1}{3}$
10. $1\frac{4}{5}$

Day 4

1. $\frac{5}{2}$
2. $\frac{5}{4}$
3. $\frac{6}{5}$
4. $\frac{13}{3}$
5. $\frac{16}{5}$
6. $\frac{17}{5}$
7. $\frac{16}{7}$
8. $\frac{8}{3}$
9. $\frac{5}{3}$
10. $\frac{19}{4}$

Day 5

1. $\frac{1}{2}$
2. $\frac{3}{4}$
3. $\frac{1}{2}$
4. $\frac{6}{7}$
5. $\frac{4}{9}$
6. $\frac{2}{3}$
7. $\frac{3}{4}$
8. $\frac{2}{3}$
9. $\frac{4}{5}$
10. $\frac{5}{16}$

Day 6

1. $\frac{1}{4}$
2. $\frac{3}{5}$
3. $\frac{1}{4}$
4. $\frac{3}{5}$
5. $1\frac{2}{15}$
6. $1\frac{3}{5}$
7. $\frac{7}{3}$
8. $\frac{7}{4}$
9. $\frac{1}{2}$
10. $\frac{4}{5}$

UNIT 7

Day 1
1. 11
2. 17
3. 21
4. 16
5. 25
6. 51
7. 31
8. 31
9. 81
10. 81

Day 2
1. 17
2. 200
3. 112
4. 64
5. 21
6. 54
7. 19
8. 120
9. 17
10. 47

Day 3
1. 16
2. 69
3. 26
4. 19
5. 18
6. 51
7. 20
8. 48
9. 19
10. 54

Day 4
1. 30
2. 46
3. 32
4. 15
5. 9
6. 19
7. 31
8. 54
9. 18
10. 243 (divide by 2,times 3)

Day 5
1. 50
2. 4
3. 22
4. 7
5. 5
6. 11
7. 11
8. 20
9. 19
10. 7

Day 6
1. 98
2. 0
3. 14
4. 64
5. 56
6. 3
7. 2
8. 42
9. 13
10. 48

UNIT 8

Day 1
1. 3 000 m
2. 500 m
3. 11 000 m
4. 4 500 m
5. 25 000 m
6. 13 000 m
7. 14 508 m
8. 8500 m
9. 9 012 m
10. 805 m
11. 12 126 m
12. 13 967 m
13. 37 514 m
14. 135 052 m
15. 37 314 m
16. 356 058 m

Day 2
1. 200 000 cm
2. 1 400 000 cm
3. 300 000 cm
4. 50 000 cm
5. 550 000 cm
6. 500 004 cm
7. 400 958 cm
8. 706 023 cm
9. 5 206 301 cm
10. 502 154 cm
11. 2 504 089 cm
12. 190 920 cm
13. 51 369 cm
14. 200 061 cm
15. 25 632 115 cm
16. 50155 cm

Day 3
1. 8 000 mm
2. 11 000 mm
3. 3 500 mm
4. 500 mm
5. 5 000 mm
6. 2 517 mm
7. 6 259 mm
8. 1 371 mm
9. 36 695 mm
10. 26 986 mm
11. 325 055 mm
12. 8565 mm
13. 1 001 001 mm

14. 1011 mm
15. 1 002 034 mm
16. 2 002 105 mm

Day 4
1. 27 km
2. 0.5km or $\frac{1}{2}$ km
3. 3 km
4. 406 km
5. 80.5 km
6. 10 km
7. 8 km
8. 17.5 km
9. 9.5 km
10. 58.5 km
11. 260.5 km
12. 93 km
13. 60 km
14. 14 km
15. 4.4 km
16. 78.75 km

Day 5
1. 353 cm
2. 20 cm
3. 744.5 cm
4. 5950 cm
5. 99 900 cm
6. 2600 cm
7. 150 000 cm
8. 445 cm
9. 5040 cm
10. 2582 cm
11. 109 cm
12. 8 cm
13. 499495 cm
14. 0 cm
15. 79945 cm
16. 35743 cm

DAY 6
1. 6 500 m
2. 12 527 m
3. 413.69 m
4. 1350 cm
5. 20 022 cm
6. 76 000 cm
7. 7 000 mm
8. 26 469 mm
9. 227 635 mm
10. 209.5km OR $209\frac{1}{2}$ km
11. 16 km
12. 3.505 km
13. 223 cm
14. 1500 cm
15. 34720 cm

UNIT 9

Day 1
1. 13 students
2. 2 students
3. 2 students
4. Teachers Mark
5. 2 students

Day 2
1. 68 points
2. 17 points
3. 32 points
4. Teachers Mark
5. 19 points

Day 3
1. 15 people
2. 30 people
3. 15 people
4. Teachers Mark
5. 2 people

Day 4
1. Sri Lanka
2. 413 runs
3. 50 runs
4. 587 runs
5. 42 runs

Day 5
1. 21 ~ 30°C
2. 9 days
3. 24 days
4. Teachers Mark
5. 24 days

Day 6
1. 55 mm
2. 15 mm
3. June and November
4. Teachers Mark
5. 42.5 mm

UNIT 10

Day 1

1. 10 years
2. 2 weeks
3. 1 000 years
4. 366 days
5. 100 years
6. 13 days
7. 14 days
8. 53 days
9. 401 days
10. 368 days

Day 2

1. 1.5 days OR $1\frac{1}{2}$ days
2. 3 days
3. 0.5day OR $\frac{1}{2}$ day
4. 11 days
5. 3.5days OR $3\frac{1}{2}$ days
6. 6 days
7. 12 days
8. 8.5 days OR $8\frac{1}{2}$ days
9. 2.5 days OR $2\frac{1}{2}$ days
10. 10.5days OR $10\frac{1}{2}$ days

Day 3

1. 3 weeks
2. 7 weeks
3. 2.5 weeks OR $2\frac{1}{2}$ weeks
4. 4.5 weeks OR $4\frac{1}{2}$ weeks
5. 0.5 week OR $\frac{1}{2}$ week
6. 3 fortnights
7. 2.5 fortnights OR $2\frac{1}{2}$ fortnights
8. 4.5 fortnights OR $4\frac{1}{2}$ fortnights
9. 2 fortnights
10. 4 fortnights

Day 4

1. 6 months
2. 48 months
3. 28 months
4. 84 months
5. 66 months
6. 2.5 years OR $2\frac{1}{2}$ years
7. 5 years
8. 1.5 years OR $1\frac{1}{2}$ years
9. 4 years
10. 7.5 years OR $7\frac{1}{2}$ years

Day 5

1. 0317
2. 2155
3. 0000
4. 1134
5. 1622
6. 3:11 PM
7. 11:08 PM
8. 8:45 PM
9. 2:29 AM
10. 12:00 PM

Day 6

1. 120 months
2. 99 days
3. 2 days
4. 4 days
5. 5 weeks
6. 4.5 fortnights
7. 18 months
8. 4.5 years
9. 2045
10. 12:15 AM