Sec 1. SA1

1. Round off 69.435 7 correct to the nearest

   (a) tenth

   (b) hundredth

   (c) thousandth

Answer: (a) _____ [1]

(b) _____ [1]

(c) _____ [1]

2. The numbers 504 and 972, written as the products of their prime factors, are

$$504 = 2^3 \times 3^2 \times 7, \quad 972 = 2^2 \times 3^5.$$

   Find the

   (a) largest integer which is a factor of both 504 and 972,

   (b) smallest positive integer value of n for which $504n$ is a multiple of 972.

Answer: (a) _____ [1]

(b) _____ [1]

3. The temperature of liquid nitrogen is −196° C. The temperature of a blow torch is 1300° C.

   (a) What is the difference between the two temperatures?

   (b) The temperature of a solid is exactly between these two temperatures.

   What is the temperature of this solid?

Answer: (a) _____ [1]

(b) _____ [1]

4. Write down the 4th and 6th rows of the pattern in the table below. [2]

1st row	9	–	1	=	8
2nd row	98	–	21	=	77
3rd row	987	–	321	=	666
4th row					
⋮					
6th row					

5. Two types of coffee, grade A coffee costs \$13 per kg while grade B coffee costs \$9 per kg. Mr Lee mixes 2 kg of grade A coffee and 3 kg of grade B coffee together and repacks them into packets containing 250g of mixed coffee. At what price must he sell each 250g of mixed coffee in order to make a 35% profit? Give your answer correct to the nearest 10 cents.

Answer: _____ [3]

6. Using a calculator, evaluate:

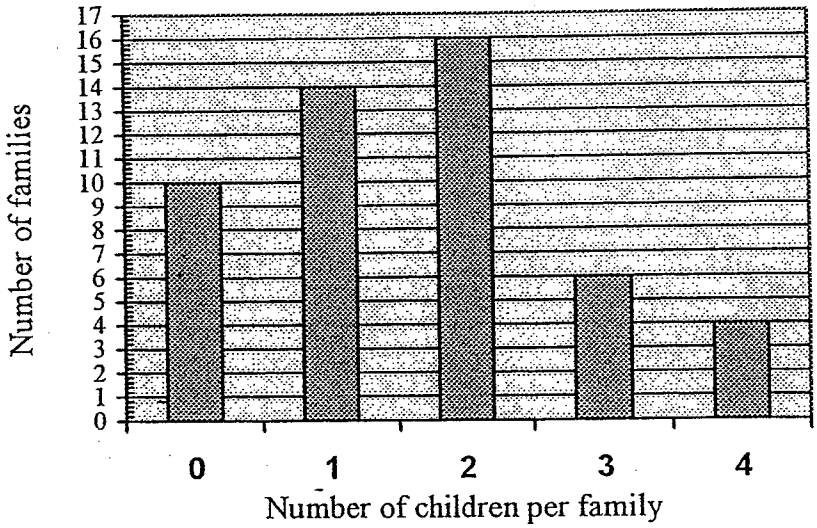
(a) $\dfrac{245\times\sqrt[3]{269.78}+996\times4.14^2}{4\times(54.783)^3}$, giving your answer correct to 3 significant figures.

(a) $\sqrt{\dfrac{4.72-3.8+1.04}{12.5}}-\dfrac{6.33\ -5.15\times0.84}{-0.167}$, giving your answer correct to three decimal places.

Answer: (a) _____ [1]

(b) _____ [1]

7. The graph shows the number of children per family in a housing estate. There are 50 families in the estate.



(a) What is the total number of children in the housing estate?

(b) What percentage of family in the estate has fewer than 2 children?

Answer: (a) _____ [1]

(b) _____ [2]

8. Using the test of divisibility, check if the number 561 276 is divisible by
(a) 3
(b) 4
Give reasons for your answers.

Answer:
(a) 561 276 is / is not divisible by 3. (circle the correct answer) [1]

Reason : _____ [1]

(b) 561 276 is / is not divisible by 4. (circle the correct answer) [1]

Reason : _____ [1]

9. Consider the six numbers : $0.\dot{3}$ $\sqrt{2}$, π, 0.25, $\sqrt[3]{-27}$, $\frac{-3}{\sqrt{50}}$.

Write down all the rational numbers.

Answer: _____ [2]

10. Given that $x = -2, y = -5$ and $z = \frac{1}{3}$, find the value of

(a) $x^2 - 2y + 7z$

(b) $\frac{7x+2z}{y}$.

Leave your answers in mixed numbers.

Answer: (a) _____ [1]

(b) _____ [1]

11. (a) Express $\frac{4}{11}$ as a

(i) recurring decimal,

(ii) decimal correct to 3 decimal places.

(b) Convert

(i) 23 km/h to m/s, leaving your answer as a fraction.

(ii) 40 m/s to km/h.

Answer: (ai) _____ [1]

(aii) _____ [1]

(bi) _____ [1]

(bii) _____ [1]

12. (a) The n^{th} term of a sequence of numbers is $n^2 + 3$. Write down the first four terms of this sequence.

(b) The first four terms of another sequence are 0, 3, 8, 15.... Write down an expression, in terms of n, for the nth term of this sequence.

Answer: (a) _____ [1]

(b) _____ [2]

13. Factorise each of the following algebraic expressions:

(a) $6ap^2 - 9a^2p^3r$

(b) $11y(m + 3n) - 4(3n + m)$

(c) $5d(b - 2a) + 4c(2a - b)$

(d) $12pq - 4qr - 3ps + rs$

Answer: (a) _____ [½]

(b) _____ [1]

(c) _____ [2]

(d) _____ [2]

14. Simplify each of the following expressions:

(a) $2n - 4\,[3(t - 3n) - 5(n - 2t)]$

(b) $\frac{2(3-2a)}{5} - \frac{4(a+1)}{7}$

Answer: (a) _____ [3]

(b) _____ [3]

15. Amy is n years old. Bob, her brother, is 9 years older than Amy.
Their mother is 3 times as old as Amy. Their father is twice as old as Bob.

(a) Write down expressions, in term of n, for
  (i) Bob's age
  (ii) their mother's age,
  (iii) their father's age.

(b) The sum of the ages of the four members of the family is 139.
  (i) write down an equation to represent the total ages in term of n.
  (ii) solve the equation to find the value of n.
  (iii) Hence find the mother's age when Bob was born.

Answer: (ai) _____ years old [1]

(aii) _____ years old [1]

(aiii) _____ years old [1]

(bi) _____ [1]

(bii) _____ [1]

(biii) _____ years old [2]

16. (a) List the smallest positive prime number such that $-2t < 7$.

(b) List the possible positive integers such that $5p \leq 11$.

Answer: (a) _____ [2]

(b) _____ [2]

17. The ratio of the number of books to the number of toys in the box was 4 : 5. $\frac{1}{2}$ of the books and $\frac{2}{3}$ of the toys were given away. There were 33 books and toys left in the box .

(a) Find the new ratio of the number of books to the number of toys left in the box. Give your answer in the simplest form.

(b) How many toys were left in the box?

Answer: (a) _____ [2]

(b) _____ [2]

18. Without using a calculator and showing all the steps clearly,

(a) express 3375 as a product of prime factors in index notation. Hence, find the cube root of 3 375.

(b) if $4\,536 = 2^a \times 3^b \times 7^c$, find the value of c.

(c) find the sum of the first four prime numbers that end with the digit 7.

Answer: (a) _____ [2]

(b) _____ [2]

(c) _____ [2]

19. (a) Given that $\sqrt{3.47} = 1.863$, $\sqrt{34.7} = 5.891$, find the value of $\sqrt{34700}$ without using the calculator.

(b) Mr Lee travels the first 120 km of a 200-km journey at an average speed of 40 km/h. If the time taken for the whole journey is 4 hours 20 minutes, find the average speed at which he travels the later part of the journey.

Answer: (a) _____ [2]

(b) _____ [4]

20. Solve the following equations:

(a) $2p - 5 = 4 - 3(p + 2)$

(b) $\frac{x-1}{3} + \frac{x+5}{2} = 8$

(c) $\frac{3}{t} = \frac{5}{t-7}$

Answer: (a) _____ [2]

(b) _____ [2]

(c) _____ [3]

21. Each diagram in the sequence below consists of a number of dots.

Diagram 1 Diagram 2 Diagram 3 Diagram 4 Diagram 5

(a) Draw diagram number 5 of the sequence in the space provided above. [1]

(b) Complete the table below. [1]

Diagram number	1	2	3	4	5
Number of dots	6	10			

(c) By considering the number pattern, without drawing further diagrams, write down the number of dots in

(i) diagram 10,

(ii) diagram 500.

(d) Diagram k has 70 dots. Find k.

(e) The number of dots in diagram n is denoted by x. Write an equation for x in terms of n.

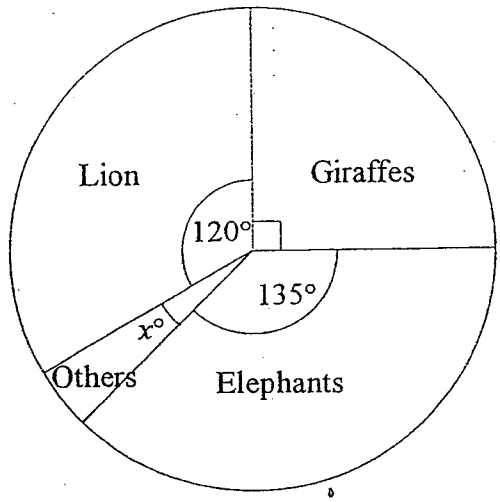
Answer: (ci) _____ [1]

(cii) _____ [1]

(d) _____ [1]

(e) _____ [2]

22. Visitors to a National Park were asked to vote for their favourite animal. The results are shown on the given pie chart.



(a) Calculate

(i) the value of x,

(ii) the percentage of visitors who voted for giraffes.

(b) Calculate the number of people who took part in the survey, given that the elephants obtained 30 more votes than lions.

Answer: (a) _____ [1]

(b) _____ [1]

(c) _____ [2]

23. (a) The following purchases were made at a supermarket : 2.2kg of tomatoes at \$3.40 per kg, 1.2 kg of bananas at \$1.50 per kg, 18 apples at 99¢ for 3 and 2kg of potatoes at 81¢ per kg. Calculate the total cost of the 4 items.

(b) Sam drives 1 273 km using his car. Given that petrol costs \$2.18 per litre and his car travels 12 km using 1 litre of petrol, how much will he need to spend on petrol for the distance travelled.

Answer: (a) _____ [2]

(b) _____ [2]

24. A survey was carried out on a group of 40 students to find the number of times they had travelled in airplanes in the past three years. The following set of data was obtained.

3	1	0	0	2	5	1	2
2	4	5	2	3	4	0	1
3	0	3	1	4	3	1	2
1	3	1	2	0	1	2	1
4	1	2	1	3	1	4	2

(a) Complete the table below. [2]

Number of times	Tally	Frequency
0		
1		
2		
3		
4		
5		

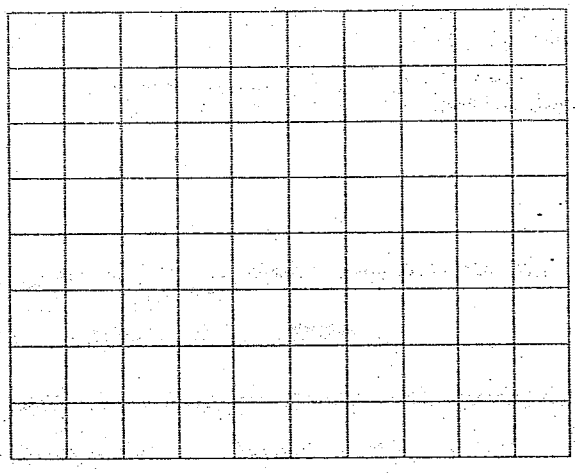
(b) What is the most common number of times the students had travelled in airplanes in the past three years?

Ans: _____ [1]

(c) What percentage of the students travelled at least 3 times in airplanes in the past three years?

Ans: _____ [1]

(d) Draw a histogram to illustrate the results. [3]



End Of Paper

Answers

1. Round off 69.435 7 correct to the nearest
   (a) tenth
   (b) hundredth
   (c) thousandth

Answer: (a) 69.4 [1]

(b) 69.44 [1]

(c) 69.436 [1]

2. The numbers 504 and 972, written as the products of their prime factors, are

$$504 = 2^3 \times 3^2 \times 7, \quad 972 = 2^2 \times 3^5.$$

Find the
   (a) largest integer which is a factor of both 504 and 972,
   (b) smallest positive integer value of n for which $504n$ is a multiple of 972.

Answer: (a) 36 [1]

(b) 27 [1]

3. The temperature of liquid nitrogen is −196° C. The temperature of a blow torch is 1300° C.
   (a) What is the difference between the two temperatures?
   (b) The temperature of a solid is exactly between these two temperatures.
   What is the temperature of this solid?

Answer: (a) 1 496° [1]

(b) 552° [1]

4. Write down the 4th and 6th rows of the pattern in the table below. [2]

1st row	9	–	1	=	8
2nd row	98	–	21	=	77
3rd row	987	–	321	=	666
4th row	9876	–	4321	=	5 555 A1
⋮					
6th row	987654	–	654321	=	333 333 A1

5. Two types of coffee, grade A coffee costs \$13 per kg while grade B coffee costs \$9 per kg. Mr Lee mixes 2 kg of grade A coffee and 3 kg of grade B coffee together and repacks them into packets containing 250g of mixed coffee. At what price must he sell each 250g of mixed coffee in order to make a 35% profit? Give your answer correct to the nearest 10 cents.

Ans:
Cost price of 1 kg of mixed coffee = (\$13 x 2 + \$9 x 3) ÷ 5 = \$10.60 M1

Sale price of 1 kg of mixed coffee = \$10.60 x 135% = \$14.31 M1

Sale price of 250g of mixed coffee = \$14.31 ÷4 = \$3.60 (nearest 10¢) A1

Answer: \$3.60 [3]

6. Using a calculator, evaluate:

(a) $\dfrac{245\times\sqrt[3]{269.78}+996\times4.14^2}{4\times(54.783)^3}$, giving your answer correct to 3 significant figures.

(a) $\sqrt{\dfrac{4.72-3.8+1.04}{12.5}}-\dfrac{6.33\ -5.15\times0.84}{-0.167}$, giving your answer correct to three decimal places.

Answer: (a) 0.0284 [1]

(b) 12.396 [1]

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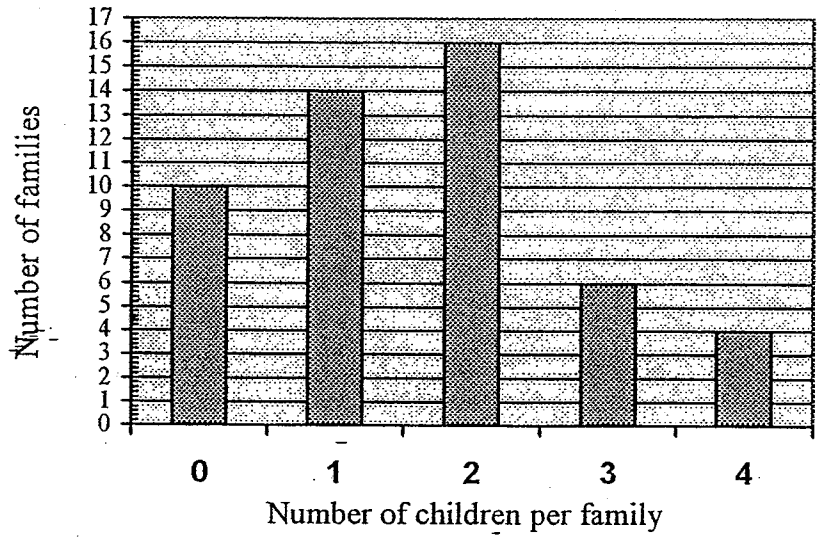
7. The graph shows the number of children per family in a housing estate. There are 50 families in the estate.



(a) What is the total number of children in the housing estate?

(b) What percentage of family in the estate has fewer than 2 children?

Ans:

(a) Total no. of children = 1 x 14 + 2 x 16 + 3 x 6 + 4 x 4 = 80 A1

(b) no. of family has fewer than 2 children = 10 + 14 = 24

$$\% \text{ of family} = \frac{24}{50} \times 100\% \qquad \text{M1}$$
$$= 48\ \% \qquad \text{A1}$$

Answer: (a) 80 children [1]

(b) 48 % [2]

8. Using the test of divisibility, check if the number 561 276 is divisible by
(a) 3
(b) 4
Give reasons for your answers.
Answer:

(a) 561 276 is/ is not divisible by 3. (circle the correct answer) [1]

Reason : sum of digit = 5 +6+1+2+7+6=27. 27 is divisible by 3 [1]

(b) 561 276 is/ is not divisible by 4. (circle the correct answer) [1]

Reason : the last two digits, 76, is divisible by 4 [1]

9. Consider the six numbers : $0.\dot{3}$ $\sqrt{2}$, π, 0.25, $\sqrt[3]{-27}$, $\frac{-3}{\sqrt{50}}$.

Write down all the rational numbers.

Answer: $0.\dot{3}$, 0.25, $\sqrt[3]{-27}$ [2]

all correct -[2]
2 correct –[1]
else – [0]

10. Given that $x = -2$, $y = -5$ and $z = \frac{1}{3}$, find the value of

(a) $x^2 - 2y + 7z$

(b) $\frac{7x+2z}{y}$.

Leave your answers in mixed numbers.

Answer: (a) $16\frac{1}{3}$ [1]

(b) $2\frac{2}{3}$ [1]

11. (a) Express $\frac{4}{11}$ as a

(i) recurring decimal,
(ii) decimal correct to 3 decimal places.

(b) Convert

(i) 23 km/h to m/s, leaving your answer as a fraction.
(ii) 40 m/s to km/h.

Answer: (ai) $0.\dot{3}\dot{6}$ [1]

(aii) 0.364 [1]

(bi) $6\frac{7}{18}$ m/s [1]

(bii) 144 km/h [1]

Omission of units will not be penalized.

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12. (a) The n^{th} term of a sequence of numbers is $n^2 + 3$. Write down the first four terms of this sequence.

(b) The first four terms of another sequence are 0, 3, 8, 15.... Write down an expression, in terms of n, for the nth term of this sequence.

Ans : (a) 4, 7, 12, 19

(b) another sequence are 0, 3, 8, 15....

	Method 1	Method 2	
Term 1	$1^2 - 1$	4 - 4	M1
Term 2	$2^2 - 1$	7 - 4	
Term 3	$3^2 - 1$	12 - 4	
Term 4	$4^2 - 1$	19 - 4	
n term	$n^2 - 1$ or $(n + 1)(n - 1)$	$(n^2 + 3) - 4$ $= n^2 - 1$ or $(n + 1)(n - 1)$	A1

Answer: (a) 4, 7, 12, 19 [1]

(b) $n^2 - 1$ or $(n + 1)(n - 1)$ [2]

13. Factorise each of the following algebraic expressions:

(a) $6ap^2 - 9a^2p^3r$
$= 3ap^2(2 - 3apr)$ A1

(b) $11y(m + 3n) - 4(3n + m)$
$= (11y - 4)(m + 3n)$ A1

(c) $5d(b - 2a) + 4c(2a - b)$
$= 5d(b - 2a) + 4c(2a - b)$
$= 5d(b - 2a) - 4c(b - 2a)$ M1
$= (5d - 4c)(b - 2a)$ A1

(d) $12pq - 4qr - 3ps + rs$
$= 12pq - 4qr - 3ps + rs$
$= 4q(3p - r) - s(3p - r)$ M1
$= (4q - s)(3p - r)$ A1

Answer: (a) $3ap^2(2 - 3apr)$ [1]

(b) $(11y - 4)(m + 3n)$ [1]

(c) $(5d - 4c)(b - 2a)$ [2]

(d) $(4q - s)(3p - r)$ [2]

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14. Simplify each of the following expressions:

(a) $2n - 4\,[3(t-3n) - 5(n-2t)]$
$= 2n - 4\,[3t - 9n - 5n + 10t]$ M1
$= 2n - 4\,[13t - 14n]$
$= 2n - 52t + 56n$ M1
$= 58n - 52t$ A1
OR $= 2(29n - 26t)$

(b) $\dfrac{2(3-2a)}{5} - \dfrac{4(a+1)}{7}$
$= \dfrac{2\times 7(3-2a)}{5\times 7} - \dfrac{4\times 5(a+1)}{7\times 5}$
$= \dfrac{42-28a}{35} - \dfrac{20a+20}{35}$
$= \dfrac{42-28a-20a-20}{35}$ M1
$= \dfrac{22-48a}{35}$ A1

Answer: (a) $2(29n - 26t)$ [3]

(b) $\dfrac{22-48a}{35}$ [3]

15. Amy is n years old. Bob, her brother, is 9 years older than Amy.
Their mother is 3 times as old as Amy. Their father is twice as old as Bob.
(a) Write down expressions, in term of n, for
(i) Bob's age
(ii) their mother's age,
(iii) their father's age.

(b) The sum of the ages of the four members of the family is 139.
(i) write down an equation to represent the total ages in term of n.
(ii) solve the equation to find the value of n.
(iii) Hence find the mother's age when Bob was born.

Ans: (c) mother's age when Bob was born = mother's age – Bob's age
$3n - (9 + n)$ M1
$= 48 - 25$
$= 23$ yrs old A1

Answer: (ai) $(9 + n)$ years old [1]

(aii) $3n$ years old [1]

(aiii) $2(9 + n)$ years old [1]

(bi) $n + (9 + n) + (3n) + 2(9 + n) = 139$
OR $7n + 27 = 139$ [1]

(bii) $n = 16$ [1]

(biii) 23 years old [2]

16. (a) List the smallest positive prime number such that $-2t < 7$.

(b) List the possible positive integers such that $5p \leq 11$.

Ans: (a) $t > -3.5$ M1
the smallest possible prime no. is 2 A1

(b) $p \leq 2.2$ M1
the positive integers are 1 and 2 A1

Answer: (a) 2 [2]

(b) 1 and 2 [2]

17. The ratio of the number of books to the number of toys in the box was 4 : 5. $\frac{1}{2}$ of the books and $\frac{2}{3}$ of the toys were given away. There were 33 books and toys left in the box .

(a) Find the new ratio of the number of books to the number of toys left in the box. Give your answer in the simplest form.

(b) How many toys were left in the box?

remaining books : remaining toys $= 4 \times \frac{1}{2} : 5 \times \frac{1}{3}$ M1

$= 2 : \frac{5}{3}$

$= 6 : 5$ A1

Total number of items = 11

11 unit rep 33 bks and toys

$\therefore$ The number of toys left in the box $= \frac{5}{11} \times 33$ M1

$= 15$ A1

Answer: (a) 6 : 5 [2]

(b) 15 toys [2]

18. Without using a calculator and showing all the steps clearly,
(a) express 3375 as a product of prime factors in index notation. Hence, find the cube root of 3 375.
(b) if $4\,536 = 2^a \times 3^b \times 7^c$, find the value of c.
(c) find the sum of the first four prime numbers that end with the digit 7.

Ans : (a) $3375 = 3^3 \times 5^3$ A1

$\sqrt[3]{3375} = \sqrt[3]{3^3 \times 5^3}$

$= 15$ A1

(b) $4\,536 = 2^3 \times 3^4 \times 7$ M1

$c = 1$ A1

(c) first four prime numbers that end with the digit 7 = 7, 17, 37, 47 M1

Sum = 7 + 17 +37 + 47 = 108 A1

Answer: (a) 15 [2]

(b) 1 [2]

(c) 108 [2]

19. (a) Given that $\sqrt{3.47} = 1.863$, $\sqrt{34.7} = 5.891$, find the value of $\sqrt{34700}$ without using the calculator.

Ans: $\sqrt{34700}$

$= \sqrt{3.47 \times 10000}$ M1

$= 1.863 \times 100$

$= 186.3$ A1

(b) Mr Lee travels the first 120 km of a 200-km journey at an average speed of 40 km/h. If the time taken for the whole journey is 4 hours 20 minutes, find the average speed at which he travels the later part of the journey.

Time taken for travelling the first 120 km = 120 ÷ 40

= 3 hr B1

Time taken for travelling the last part of journey $= 4\frac{20}{60}\text{h} - 3\text{h}$

$= 1\frac{1}{3}\text{h}$ M1

Distance of the last part of journey = 200 km – 120 km

= 80 km

The average speed of the last part of journey $= 80 \div 1\frac{1}{3}$ M1

= 60 km/h A1

Answer: (a) 186.3 [2]

(b) 60 km/h [4]

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20. Solve the following equations:

(a) $2p-5=4-3(p+2)$

Answer: (a) $2p-5=4-3(p+2)$

$2p-5=4-3p-6$ M1

$2p+3p=4-6+5$

$5p=3$

$p=0.6$ or $\frac{3}{5}$ A1

(b) $\frac{x-1}{3}+\frac{x+5}{2}=8$

$\frac{x-1}{3}+\frac{x+5}{2}=8$ (multiply both sides by 6)

$2(x-1)+3(x+5)=48$ M1

$2x-2+3x+15=48$

$5x=35$

$x=7$ A1

(c) $\frac{3}{t}=\frac{5}{t-7}$

$3(t-7)=5t$

$3t-21=5t$ M1

$2t=21$

$t=10.5$ or $10\frac{1}{2}$ A1

Answer: (a) $p=0.6$ or $\frac{3}{5}$ [2]

(b) $x=7$ [2]

(c) $t=10.5$ or $10\frac{1}{2}$ [3]

21. Each diagram in the sequence below consists of a number of dots.

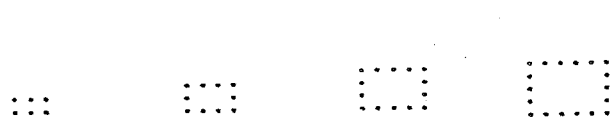


Diagram 1 Diagram 2 Diagram 3 Diagram 4 Diagram 5 A1

(a) Draw diagram number 5 of the sequence in the space provided above.
(b) Complete the table below.

Diagram number	1	2	3	4	5
Number of dots	6	10	**14**	**18**	**22**

A1

(c) By considering the number pattern, without drawing further diagrams, write down the number of dots in
(i) diagram 10,
(ii) diagram 500.
(d) Diagram k has 70 dots. Find k.
(e) The number of dots in diagram n is denoted by x. Write an equation for x in terms of n.

(c) (i) $6 + 4 \times 9 = 42$ A1
(ii) $6 + 4 \times 499 = 2002$ A1

(d) $70 = 6 + 4 \times (k - 1)$
$k = 17$ A1

(e) $x = 6 + 4 \times (n - 1)$
$= 6 + 4n - 4$ M1
$= 4n + 2$ A1
OR $2(2n + 1)$

(c) $2(10+2) + 2(10-1) = 42$ A1
$2(500+2) + 2(500-1) = 2002$ A1

(d) $2(k+2) + 2(k-1) = 70$
$4k + 2 = 70$
$k = 17$ A1

(e) $2(n+2) + 2(n-1)$ M1
$= 4n + 2$ A1
OR $2(2n + 1)$

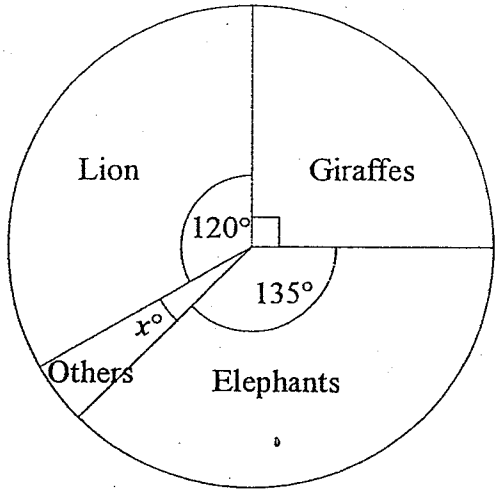
Answer: (ci) $6 + 4 \times 9 = 42$ [1]

(cii) $6 + 4 \times 499 = 2002$ [1]

(d) $D = 17$ [1]

(e) $2(2n + 1)$ [2]

22. Visitors to a National Park were asked to vote for their favourite animal. The results are shown on the given pie chart.



(a) Calculate

(i) the value of x,

(ii) the percentage of visitors who voted for giraffes.

(b) Calculate the number of people who took part in the survey, given that the elephants obtained 30 more votes than lions.

Ans: (ai) $x^\circ + 120^\circ + 90^\circ + 135^\circ = 360^\circ$

$x^\circ + 345^\circ = 360^\circ$

$x = 15$ A1

(aii) $\frac{90^\circ}{360^\circ} \times 100\%$

$= 25\%$ A1

(b) diff in angle $= 135^\circ - 120^\circ = 15^\circ$

15° rep 30 votes M1

360° rep $360 \times \frac{30}{15}$ votes

$= 720^0$ votes A1

Answer: (a) $x = 15$ [1]

(b) 25% [1]

(c) 480 votes [2]

23. (a) The following purchases were made at a supermarket : 2.2kg of tomatoes at \$3.40 per kg, 1.2 kg of bananas at \$1.50 per kg, 18 apples at 99¢ for 3 and 2kg of potatoes at 81¢ per kg. Calculate the total cost of the 4 items.

Ans : total cost $= \$(2.2 \times 3.4 + 1.2 \times 1.5 + \frac{18}{3} \times 0.99 + 2 \times 0.81)$ M1

$= \$16.84$ A1

(b) Sam drives 1 273 km using his car. Given that petrol costs \$2.18 per litre and his car travels 12 km using 1 litre of petrol, how much will he need to spend on petrol for the distance travelled.

Ans : amt of petrol needed = 1 273 ÷ 12= 106.08 litres M1

Cost of petrol = \$(106.08 x 2.18)

= \$ 213.25 A1

OR

\$(1 273 ÷ 12) x 2.18 M1

= \$213.26 A1

Answer: (a) \$16.84 [2]

(b) \$213.26 [2]

24. A survey was carried out on a group of 40 students to find the number of times they had travelled in airplanes in the past three years. The following set of data was obtained.

3	1	0	0	2	5	1	2
2	4	5	2	3	4	0	1
3	0	3	1	4	3	1	2
1	3	1	2	0	1	2	1

4 1 2 1 3 1 4 2

(a) Complete the table below.

Number of times	Tally	Frequency
0	𝍸	5
1	𝍸 𝍸 //	12
2	𝍸 ////	9
3	𝍸 //	7
4	𝍸	5
5	𝍸	2

(a) tally-[1m], frequency-[1m]

(b) What is the most common number of times the students had travelled in airplanes in the past three years?

Ans: 1 time [1]

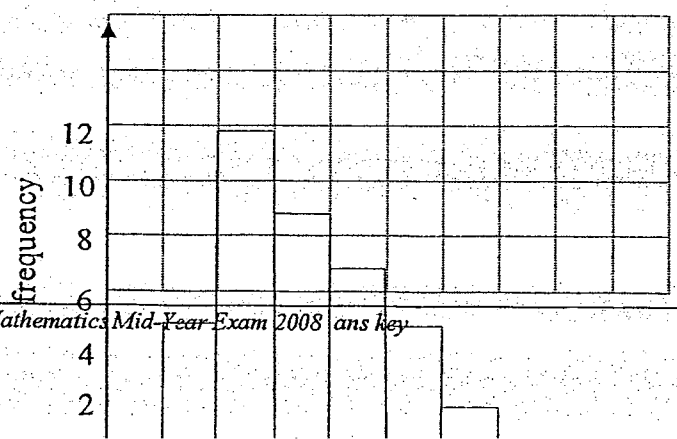
(c) What percentage of the students travelled at least 3 times in airplanes in the past three years?

Ans: no. of students who has flown in an airplane at least 3 times = 7 + 5 + 2 = 14

% of students who has flown in an airplane at least 3 times = $\frac{14}{40} \times 100\%$

$= 35\ \%$ A1

(d) Draw a histogram to illustrate the results.



label [1]

same width [1]

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