Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2013)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet A

Thursday 8 May 2013 50 min

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 15 questions in this booklet.

Answer ALL questions.

You are not allowed to use a calculator.

Name : _____ ( )

Class : 6.( )

Parent's Signature:_____

This question paper consists of 8 printed pages. (Inclusive of cover page)

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer sheet. (20 marks)

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1. $\frac{3}{5} \div \frac{4}{5} = \frac{[\ ]}{8}$. What is the missing number in the fraction?

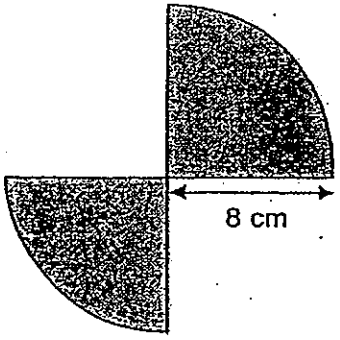
   (1) 3

   (2) 4

   (3) 5

   (4) 6

2. The figure below is made up of 2 identical quadrants. What is the area of the shaded part? Leave your answer in terms of π.



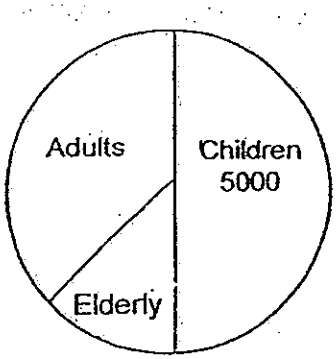
   (1) 8π cm^2

   (2) 16π cm^2

   (3) 32π cm^2

   (4) 64π cm^2

3. The pie chart shows the number of people who visited the Universal Studio last month. The number of elderly was $\frac{1}{4}$ the number of children. What was the number of adult who visited the Universal Studio last month?



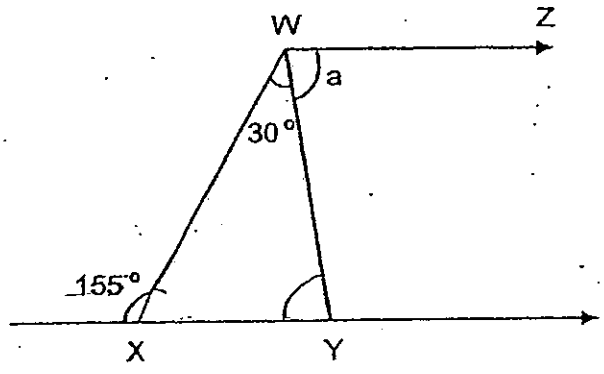
(1) 1250

(2) 2750

(3) 3750

(4) 4250

4. WXY is a triangle. WZ // XY. Find ∠a.



(1) 55°

(2) 60°

(3) 120°

(4) 125°

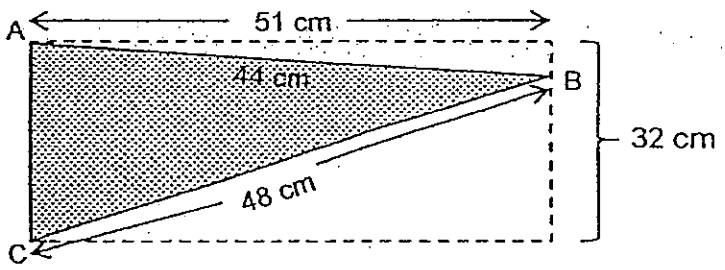
5. What is the area of the triangle ABC as shown in the figure?

(1) 704 cm^2

(2) 768 cm^2

(3) 816 cm^2

(4) 1632 cm^2



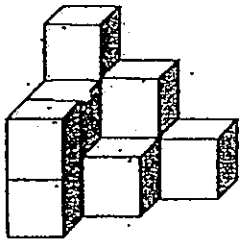
6. The figure below shows 11 identical cubes glued together to form a solid. The whole solid, including the base, is then painted green. How many cubes have **exactly four** of their faces painted green?

(1) 5

(2) 6

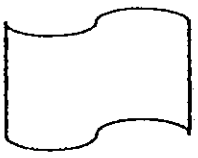
(3) 3

(4) 4

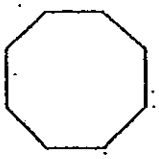


7. Which one of the following shapes cannot form tessellation(s)?

(1)

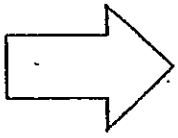


(2)



(3)

(4)



8. Jason and Sean shared $105 in the ratio of 2 : 3. How much more money did Sean get than Jason?

(1) $1

(2) $21

(3) $42

(4) $63

9. 4 apples and 6 oranges cost $4. How much does 10 such apples and 15 oranges cost?

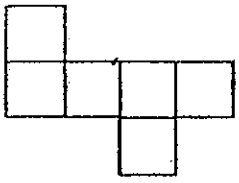
(1) $8

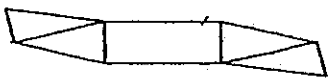
(2) $10

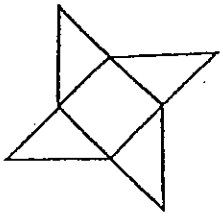
(3) $12

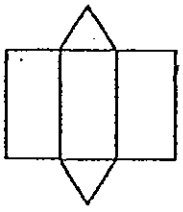
(4) $14

10. Which of the following **is not** a net of a solid?

(1) 

(2) 

(3) 

(4) 

11. Peter uses four letters W,X,Y and Z to form a pattern. The first 18 letters are shown below. Which letter is in the 165th position?

W X Y Z X W W X Y Z X W W X Y Z X W ....?		
1st	18th	165th

(1) W

(2) X

(3) Y

(4) Z

12. $\frac{1}{5}$ of a circle is shaded. If the diameter of the circle is 10 cm, what is the area of the shaded part of the circle? (Take $\pi = 3.14$)

(1) 15.7 cm^2

(2) 31.4 cm^2

(3) 62.8 cm^2

(4) 78.5 cm^2

13. The rates of advertising in a magazine are as shown in the table below.

For the first 15 words	$12.50
Every additional 5 words	$2.50

Kendish has only $50 and wishes to place an advertisement in the magazine, what is the maximum number of words he can have on his advertisement?

(1) 15

(2) 30

(3) 75

(4) 90

14 The pupils in a class are divided equally into Team A and Team B. The ratio of the number of boys to the number of girls in Team A is 3: 1 and in Team B is 1 : 7. What is the ratio of the number of boys to the number of girls in the class?

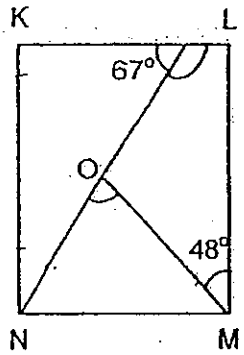
(1) 1 : 1

(2) 3 : 7

(3) 1 : 2

(4) 7 : 9

15. KLMN is a rectangle. Find ∠NOM.



(1) 23°

(2) 42°

(3) 71°

(4) 96°

Anglo-Chinese School (Junior)

THE BEST IS YET TO BE

SEMESTRAL ASSESSMENT 1 (2013)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet B

Thursday 8 May 2013 50 min

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 15 questions in this booklet.

Answer ALL questions.

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Name : _____ ( )

Class : 6.( )

Parent's Signature:_____

Booklet	Possible Marks	Marks Obtained
A	20	
B	20	
TOTAL	40	

This question paper consists of 7 printed pages. (Inclusive of cover page)

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

16. Find the value of $100 - \{40 + 8 \div 2\} + 3 \times 8$

Ans: _____

17. Write 5 hundred, 6 tens, 7 tenths and 8 thousandths as a decimal.

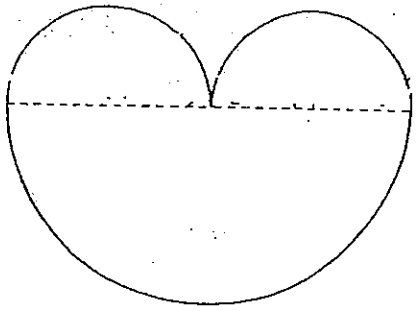
Ans: _____

18 The ratio of the volume of Cube A to the volume of Cube B is 5 : 1
if the volume of Cube A is 320 cm^3, what is the length of Cube B?

Ans: _____ cm

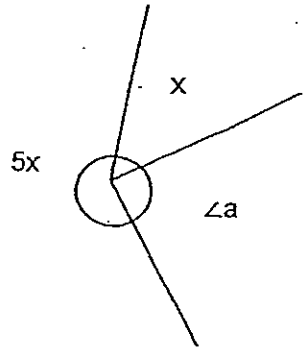
Sub-total: [ ]

19 The figure is made up of 2 identical small semicircles and a big semicircle. If the diameter of the small semicircle is 14 cm, fine the area of the figure show below. (Take π $\frac{22}{7}$)



Ans: _____ cm^2

20 If $\angle a = 2x$, find the value of x.



Ans: _____ °

Sub-total: ☐

21 The distances covered by 2 children participants and 2 adult participants during a charity run were 628m, 808 m, 7.4km and 12.6km. What was the average distance covered by these participants? (Give your answers in metres)

Ans: _____ m

22 John has 36 coins. $\frac{5}{12}$ of them are twenty-cent coin and the rest are fifty-cent coins. How much money does john have in all?

Ans: $_____

23 Express 5.682 as a percentage.

Ans: _____ %

Sub-total: [ ]

24 A piece of wire is bent to form the sides of a triangle in the ratio of 3 : 4 : 5 If the longest side is 35 cm, what is the length of the wire?

Ans: _____ cm

25 The ratio of Ben's mass to Noel's mass is 4:5. What percentage of Noel's mass is Ben's mass?

Ans: _____ %

Sub-total: [ ]

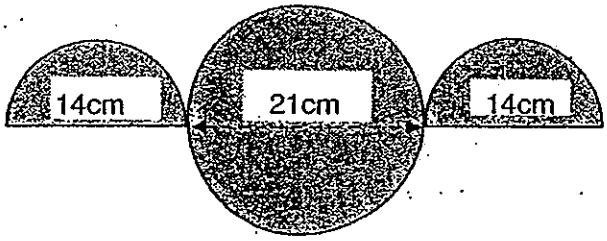
Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

26 At a dinner party, every 6^{th} guest gets a cup and every 8^{th} guest gets a mug. Linda was the first guest to receive both the cup and the mug. What was Linda's position as a guest at the party?

Ans: _____

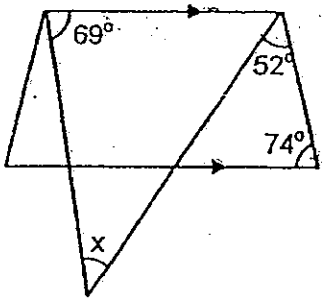
27 The figure consists of 2 small semicircles and one circle with diameters 14 cm and 21 cm respectively. What is the perimeter of the shaded figure? (Take $\pi = \frac{22}{7}$)



Ans: _____ cm

Sub-total: ☐

28 In the figure, ABCD is a trapezium. Find $\angle x$.



Ans: _____ °

29 A box contains black, grey and white erasers. The ratio of the number of black erasers to the number of gray erasers is 2 ; 5. Half of the total number of the erasers is white. What is the ratio of the number of black erasers to the number of white erasers?

Ans: _____

30 Ali, William and jeremy shared \$300. Ali received $\frac{4}{5}$ of the amount of money William received and jeremy received 40% of the total amount of money. How much money did Ali receive?

Ans: \$_____

END OF PAPER

Sub-total: ☐

Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2013)
PRIMARY 6

MATHEMATICS

PAPER 2

Thursday 8 May 2013 1 hr 40 min

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 18 questions in this booklet.

Answer ALL questions.

You are allowed to use a calculator.

Name :_____( )

Class : 6.( )

Parent's Signature:_____

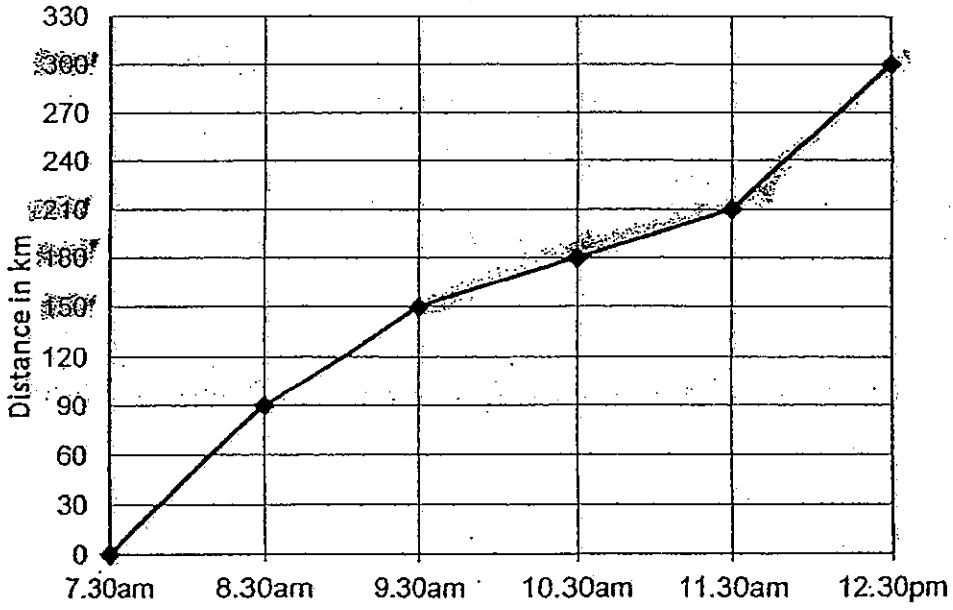
Paper	Possible Marks	Marks Obtained
1	40	
2	60	
TOTAL	100	

This question paper consists of 14 printed pages. (Inclusive of cover page)

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

1 A motorist travelled from Town A to Town B. The line graph below shows the distance travelled by him from 7.30am to 12.30pm.

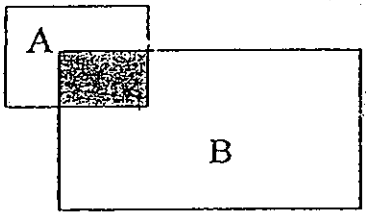


Find his average speed for the last 3 hours of his journey.

Ans: _____

Sub-Total: [ ]

2 The figure is made up of rectangle A and rectangle B. $\frac{2}{9}$ of the rectangle B is shaded and $\frac{4}{7}$ of the rectangle A is unshaded. What is the ratio of the area of shaded part to the area of the unshaded part of the figure?



Ans: _____

3 Mr Lim had $688 and Mrs Lim had $326. How much more money must Mr Lim give to Mrs Lim such that he had $120 more than Mrs Lim?

Ans: $ _____

Sub-Total:

4 $\frac{3}{5}$ of Timothy's marks is equal to $\frac{1}{2}$ of Zachary's mark's. If Zachary has 8 more marks than Timothy, what is Timothy's marks?

Ans: _____

5 Jane wants to buy 10 boxes of pears but is short of $21.20. If she buys 3 boxes of pears, she will have $99.20 left. How much money does Jane have?

Ans: $_____

Sub-Total:

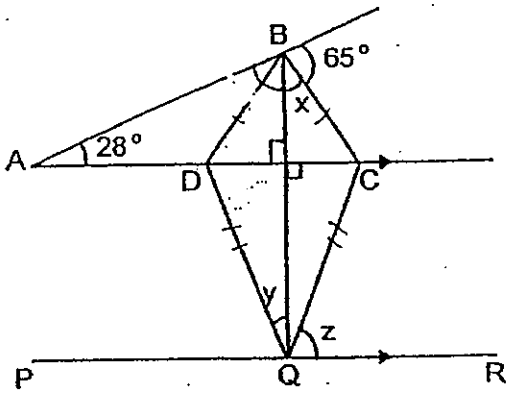
For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

---

6 There were 25 questions in a Science quiz. 4 marks were awarded for each correct answer and 1 mark was deducted for each incorrect answer. Amy scored 60 marks. How many questions did she answer incorrectly?

Ans: _____ [3]

7 In the figure below, DB = BC. DQ = CQ.
Find the sum of the angles x, y and z.



Ans: _____ [3]

Sub-Total:

8 Some girls sew a pillowcase for their home economics lessons.

Amelia used 800cm of cloth. She used $\frac{4}{5}$ as much cloth as the amount Blanca used. Clarris used $\frac{3}{10}$ of the amount of cloth that Blanca used. What was the average amount of cloth used by each girl?

Ans: _____ [3]

9 The table shows the number of fish in an aquarium.

Type of fishes	Quantity ~~Quantity Sold~~
Goldfish	28
Guppy	50
Angelfish	22

(a) What is the ratio of the number of goldfish to the total number of fish? Express your answer in simplest form.

(b) How many more goldfish must be added so that the ratio of the number of goldfish to the total number of fish becomes 5 : 14?

Ans: (a) _____ [1]

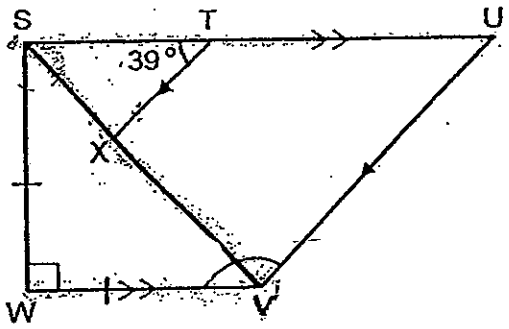
(b) _____ [2]

Sub-Total:

10. There are blue, red and pink balls in a box. 40% of the balls are blue. The number of blue balls is 20 more than the number of pink balls. There are 50 red balls. What is the number of pink balls in the box?

Ans: _____ [3]

11 SVW is an isosceles triangle. SU // WV and TX // UV. Find ∠UVW.



Ans: _____ [4]

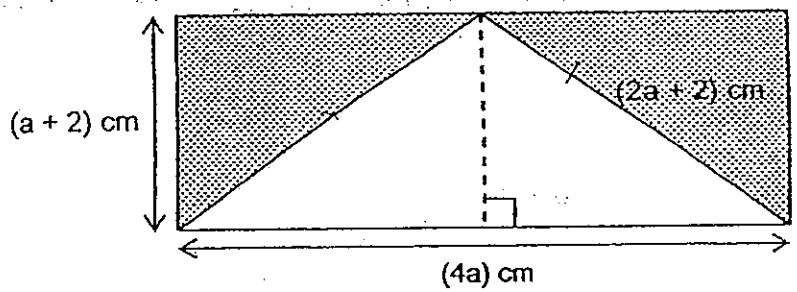
Sub-Total

12 Jonathon had $8 in his piggy bank at the end of last month. This month, his mother wanted to encourage him to save more money. For every $6 Jonathon saved, his mother would give another $3 to him. How much did Jonathon save on his own in this month if he had $90 in his piggy bank at the end of this month?

Ans: _____ [4]

Sub-Total: [ ]

13 The figure below is made up of a rectangle and an isosceles triangle. The length of the rectangle is (4a) cm and its breadth is (a + 2) cm.



a) Find the perimeter of the shaded part.
Leave your answer in the simplest form in terms of a.

b) If $a = 2$, find the perimeter of the shaded part.

Ans: a) _____ [2]

b) _____ [2]

Sub-Total:

14 Khamed and Arafin started cycling from the same place but in the opposite directions. After 4 hours, they were 174 km apart. Khamed's average cycling speed was 12.5 km/h slower than Arafin's. What was Arafin's average cycling speed?

Ans: _____ [4]

Sub-Total:

15 The pattern below is made up of triangles.

Pattern	1st	2nd	3rd

(a) How many triangles are there in the 6th pattern?

(b) How many triangles are there in the 51st pattern?

(c) Which pattern is made of 569 triangles?

Ans: (a) _____ [1]

(b) _____ [2]

(c) _____ [2]

Sub-Total:

16 Ken spent $\frac{1}{4}$ of his money and an additional \$6 on a number of CDs. He then spent $\frac{3}{5}$ of the remaining money and an additional \$12 on magazines. Given that he was left with \$18, what fraction of his money was spent on the magazines?

Ans: _____ [4]

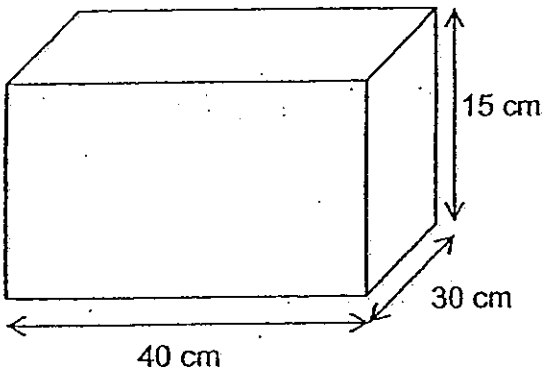
Sub-Total:

17 Jason and his brother, Gabriel shared a number of stamps in the ratio of 3: 2. After Jason and Gabriel bought 3 stamps and 14 stamps respectively, the ratio became 6 : 5. How many stamps did Gabriel have in the end?

Ans: _____ [5]

Sub-Total:

18 A tank was 80% full of water. Ali poured 280 cm^3 of water into the tank of water.
(a) How much more water was needed to fill up the tank completely?
(b) Ali used a mug with a capacity of 160 $m\ell$ to fill up the tank completely.
How many mugs of water were needed to fill up the tank?



Ans: (a) _____ [2]

(b) _____ [3]

Exam Paper 2013 Answer Sheet

School: ANGLO-CHINESE SCHOOL (JUNIOR)
Subject: PRIMARY 6 MATHEMATICS
Term: SA1

Paper 1

1)	4	6)	4	11)	3
2)	3	7)	2	12)	1
3)	3	8)	2	13)	4
4)	4	9)	2	14)	4
5)	3	10)	3	15)	3

16. 80

17. 560.708

18. 4

19. 462

20. 45

21. 5359

22. 13.50

23. 568

24. 84

25. 80

26. **24th**

27. $14 \times {}^{22}/_{7} = 44$
$44 + 14 + 14 = 72$
$21 \times {}^{22}/_{7} = 66$
$66 + 72 =$ **138**

28. $180 - 74 = 106$
$106 - 52 = 54$
$54 + 69 = 123$
$180 - 123 =$ **57**

29. **2 : 7**

30. $100 - 40 = 60$

$300 \times {}^{60}/_{100} = 180$
$180 \div (4 + 5) = 20$
$20 \times 4 =$ **80**

Paper 2

1. 180 km – 150 km = 30 km
   210 km – 180 km = 30 km
   300 km – 210 km = 90 km
   90 km + 30 km + 30 km = 150 km
   150 km ÷ 3h = **50 km/h**

2. **6 : 29**

3. \$688 - \$120 = \$568
   \$568 + \$326 = \$894
   \$894 ÷ 2 = \$447
   \$447 + \$120 = \$567
   \$688 - \$567 = **\$121**

4. 8 x 5 = **40**

5. \$99.20 + \$21.20 = \$120.40
   10 – 3 = 7
   \$120.40 ÷ 7 = \$17.20
   \$17.20 x 3 = \$51.60
   \$51.60 + \$99.20 = **\$150.80**

6. 25 x 4 = 100
   100 – 60 = 40
   1 + 4 = 5
   40 ÷ 5 = **8 questions**

7. 180° - 90° = 90°
   28° + 90° = 118°
   180° - 118° = 62°
   62° + 65° = 127°
   180° - 127° = 53°
   53° + 90° = **143°**

8. 800 cm ÷ 8 = 100 cm
   100 cm x (8 + 10 + 3) = 2100 cm
   2100 cm ÷ 3 = **700 cm**

9. (a) 28 + 50 + 22 = 100
   28 : 100 = 14 : 50 = **7 : 25**

   (b) 28 ÷ 7 = 4
   4 x (10 – 7) = **12 goldfish**

10. 1u + 20 = 40%
    2u + 40 = 80%
    100% - 80% = 20%
    50 – 20 = 30
    30 ÷ 20% = 1.5
    1.5 x 40% = 60
    60 – 20 = **40 pink balls**

11. 180° - 90° = 90°
    90° ÷ 2 = 45°
    45° + 39° = 84°
    180° - 84° = 96°
    180° - 96° = 84°
    180° - 84° = 96°
    96° + 45° = **141°**

12. $90 - $8 = $82
    $82 ÷ ($6 + $3) ≈ 9
    $9 x 9 = $81
    $82 - $81 = $1
    $3 x 9 = $27
    $81 - $27 = $54
    $54 + $1 = **$55**

13. (a) a + 2 + 4a + a + 2 + 2a + 2 + 2a + 2 = **(10a + 8) cm**

    (b) 10 x 2 = 20
        20 + 8 = **28 cm**

14. 12.5 km x 4 = 50 km
    174 km – 50 km = 124 km
    124 km ÷ 2 = 62 km
    62 km ÷ 4 h = 15.5 km/h
    15.5 km/h + 12.5 km/h = **28 km/h**

15. (a) 6 x 3 = 18
        18 + 2 = **20 triangles**

    (b) 51 x 3 = 153
        153 + 2 = **155 triangles**

    (c) 569 – 2 = 567
        567 ÷ 3 = **189th pattern**

16. $18 + $12 = $30
    $30 ÷ 2 = $15
    $15 x 5 = $75
    $75 + $6 = $81
    $81 ÷ 3 = $27
    $27 x 4 = $108

$15 x 3 = $45
$45 + $12 = $57
$^{57}/_{108} = {}^{19}/_{36}$

17. 3u + 3 = 6p
15u + 15 = 30p

2u + 14 = 5p
12u + 84 = 30p

12u + 84 = 15u + 15
15u – 12u = 3u
84 – 15 = 69
69 ÷ 3 = 23
23 x 2 = 46
46 + 14 = **60**

18. (a) 15 x 30 x 40 = 18000 cm^2
18000 cm^2 x $^{80}/_{100}$ = 14400 cm^2
14400 cm^2 = 14400 ml
18000 cm^2 = 18000 ml
280 cm^2 = 280 ml
18000 ml – 14400 ml = 3600 ml
3600 ml – 280 ml = **3320 ml**

(b) 3320 ml ÷ 160 ml = **20¾ mugs of water**