Middle Primary Division

1. Which number is $1 + 10 + 100 + 1000$?

(A) 1111   (B) 11 111   (C) 1110   (D) 1010   (E) 10 111

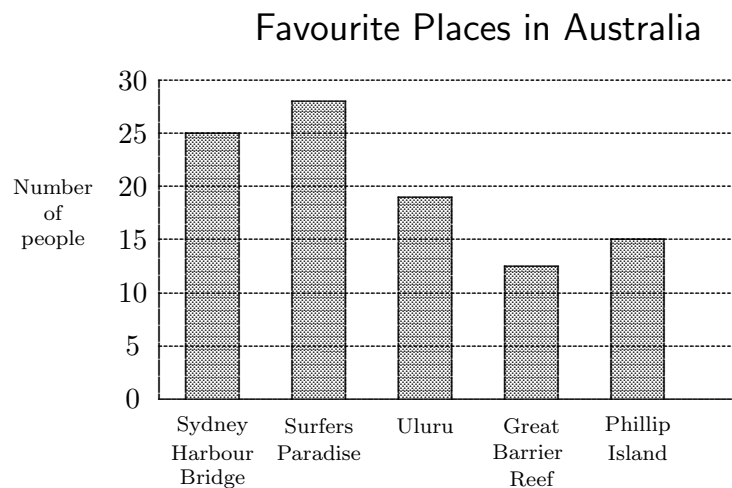**2.** Which number is halfway between 600 and 700?

(A) 550   (B) 645   (C) 650   (D) 655   (E) 700

3. Greg starts at the square with the symbol $*$ in it. He moves two squares up and one square to the right. Which symbol is in the square where he finishes?

(A) $\heartsuit$ (B) ∞ (C) $\otimes$
(D) $\triangle$ (E) $\square$

	$\heartsuit$	∞	$\otimes$	$\diamondsuit$
∞	$\triangle$		$\square$	$\triangledown$
$\triangledown$		$*$		$\otimes$
$\diamondsuit$	$\diamondsuit$		$\heartsuit$	$\triangle$
$\heartsuit$	$\triangle$	∞	$\diamondsuit$	

4. 100 people were asked to name their favourite place to visit in Australia. Their five favourite places were:

Favourite Places in Australia

How many more people voted for Sydney Harbour Bridge than for Phillip Island?

(A) 40   (B) 20   (C) 10   (D) 5   (E) 7

5. A water tank has 56 L of water in it. If 28 L of water are added, how much water will be in the tank?

(A) 84 L   (B) 56 L   (C) 28 L   (D) 76 L   (E) 78 L

6. What is one thousand and twenty-seven in numerals?

(A) 100 027   (B) 10 027   (C) 1027   (D) 127   (E) 27

**7.** The following tally was made by a Year 4 class about the pets they had at home.

Pet	Tally
Dog	卌 |||
Cat	卌 卌	
Bird	||||
Mouse		
Fish	||||

Which one of the following statements is correct?

(A) There were more birds than fish.
(B) There were more dogs than cats.
(C) The class had 30 pets altogether.
(D) The least popular pet was a bird.
(E) The most popular pet was a cat.

8. The midpoints of the sides of a square are joined as shown. A part of the original square is shaded as shown. What fraction of the original square is shaded?
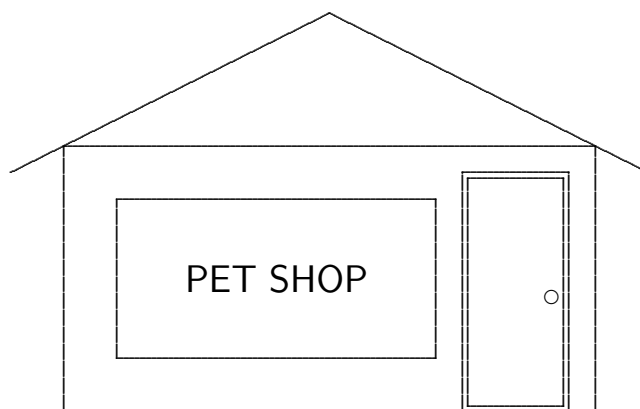
(A) $\dfrac{1}{4}$ (B) $\dfrac{1}{6}$ (C) $\dfrac{2}{3}$

(D) $\dfrac{1}{3}$ (E) $\dfrac{1}{5}$
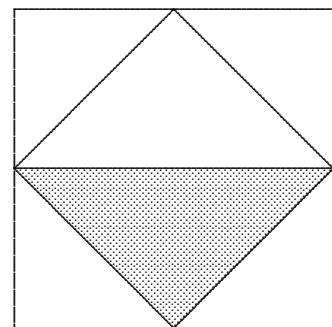
9. What change should you receive from \$5 after buying three 55c stamps?

(A) \$1.65   (B) \$2.35   (C) \$2.45   (D) \$3.35   (E) \$3.45

10. Jillian is standing inside a pet shop and looking out the window shown in the diagram.
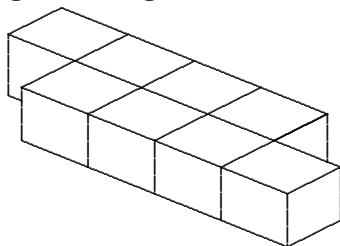

What does she see?

(A) ꟼOHꙄ T∃ꟼ   (B) ꟼOHꙄ T∃ꟼ   (C) ꙄH∃ꟼ ꟼOHꙄ

(D) ꟼOHꙄ T∃ꟼ   (E) ꟼOHꙄ T∃ꟼ

Questions 11 to 20, 4 marks each

11. I read my book from a quarter to ten until half past eleven. How long did I read for?

(A) 45 min   (B) 1.5 hr   (C) 1 hr 45 min

(D) 2 hr 15 min   (E) 2 hr 45 min

12. Eight blocks are glued together as shown.

How many faces of these blocks are glued together?

(A) 7   (B) 8   (C) 10   (D) 12   (E) 18

13. Mrs Conomos has 16 flowers. She wants to place the flowers in two vases so that one vase has three times as many flowers as the other. How many flowers will there be in the vase with the most flowers?

(A) 8   (B) 10   (C) 12   (D) 14   (E) 16

14. The number of cars in the family of each child in a class is recorded.

Which one of the following statements is true?

(A) Two families have two cars each.
(B) Six families have at least two cars each.
(C) Four families have exactly one car each.
(D) Every family has at least one car.
(E) Three families have exactly two cars each.

15. This is Liam's timetable for a normal school day.

Time	Activity
9:00 am − 9:10 am	Morning assembly
9:10 am − 11:00 am	Class time
11:00 am − 11:30 am	Recess
11:30 am − 1:00 pm	Class time
1:00 pm − 1:50 pm	Lunchtime
1:50 pm − 3:00 pm	Class time
3:00 pm	Home time

How many minutes of class time does Liam have every day?

(A) 300   (B) 250   (C) 500   (D) 270   (E) 240

16. Which three Australian banknotes would you have if you had five of each and a total of $400?

(A) $5, $10, $20   (B) $5, $10, $50   (C) $5, $10, $100

(D) $5, $20, $50   (E) $10, $20, $50

17. Use the diagram to find which of the boxes is the lightest.
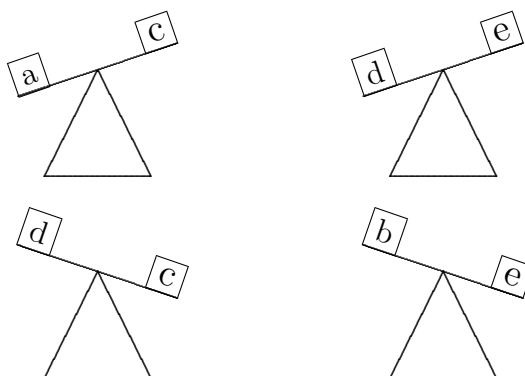
(A) a   (B) b   (C) c   (D) d   (E) e

18. Winnie is in the middle of a tuckshop queue. Jacob is three behind Winnie and has four people behind him. How many people are in the tuckshop queue?

(A) 8   (B) 14   (C) 15   (D) 16   (E) 17

19. The distance between fenceposts is 5 metres. What is the number of fenceposts needed to build a fence around a triangular paddock with sides $25\,\text{m}$, $25\,\text{m}$ and $30\,\text{m}$?

(A) 13   (B) 15   (C) 16   (D) 17   (E) 19

20. Harold wrote down his Personal Identification Number (PIN) but it got smudged and all he can see on his note is 35•2. He remembers that the PIN was divisible by 2 but not by 4. Which of the following could be the missing digit?

(A) 1   (B) 2   (C) 3   (D) 5   (E) 7

Questions 21 to 25, 5 marks each

21. Which of the following shapes cannot be used to fill completely a 4×4 grid with no overlap?
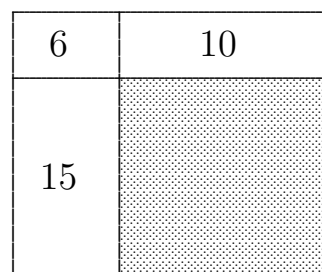
(A) (B) (C)

(D) (E)
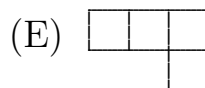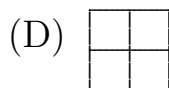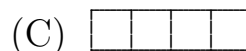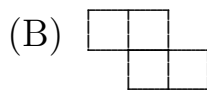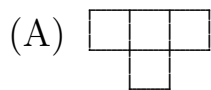
22. Jacqui starts from the year 2010 and counts down 7 at a time, giving the sequence 2010, 2003, 1996, 1989, …. A year that she will count is

(A) 1786　　　(B) 1787　　　(C) 1788　　　(D) 1789　　　(E) 1790

23. A rectangle is divided into four smaller rectangles with areas in square centimetres as shown in the diagram. The area, in square centimetres, of the shaded rectangle is

(A) 21　　　　　(B) 25　　　　　(C) 30

(D) 31　　　　(E) 32

6	10
15	

24. Don went shopping to buy toilet paper. Which of the following gave the best value?

(A) 2 rolls for $2.15　　　(B) 1 roll for $1.35　　　(C) 4 rolls for $4.20

(D) 10 rolls for $9.50　　　(E) 12 rolls for $11.95

25. Andrew lives in a house at point A on the map shown. Each section of road between two consecutive intersections is 1 km. Andrew often goes out for a 6 km run, but likes to vary his route, though without running any section of road twice. How many different routes can he take? (The same route in an opposite direction does not count as different.)
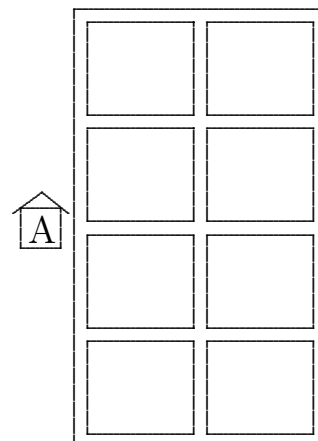
(A) 3　　(B) 4　　(C) 5　　(D) 6　　(E) 8

For questions 26 to 30, shade the answer as a whole number from 0 to 999 in the space provided on the answer sheet.

Question 26 is 6 marks, question 27 is 7 marks, question 28 is 8 marks, question 29 is 9 marks and question 30 is 10 marks.

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26. If all the numbers from 1 to 2010 are written down, how many of these will have two or more zeros next to each other?

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27. Alex and his family plan to travel from Australia to England and then to France. They will need to change their money for each country. 100 Australian dollars converts to 40 English pounds, for England. 100 English pounds converts to 80 euros, for France.

How many Australian dollars would be needed to get 120 euros?

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28. Five rectangles, each 12 cm long and of equal width, are placed together to form a single rectangle, still 12 cm long but 5 times as wide. The new rectangle has a perimeter twice as great as each of the original rectangles. What is the perimeter, in centimetres, of the new rectangle?

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29. Consider this statement:

THIS IS ONE GREAT MATHS CHALLENGE

Every minute, the first letter of each word is moved to the other end of the word. In how many minutes will the original sentence appear back again?

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30. Below is an example of a triangle drawn on a 6 by 5 grid with one vertex A on the bottom left-hand corner and the other two vertices on the top and right-hand boundaries.
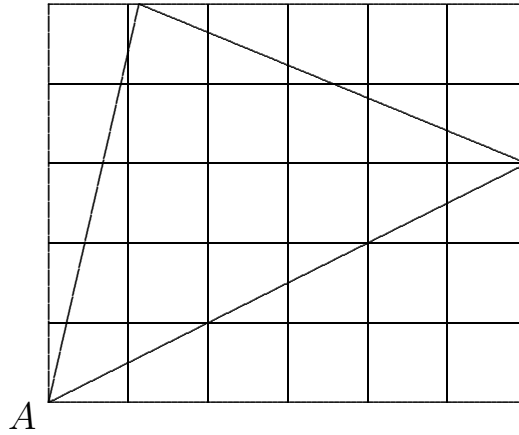
What is the largest number of squares that can be cut by the sides of such a triangle?