Middle Primary Division

Questions 1 to 10, 3 marks each

1. $8 + 4 =$

(A) 4 (B) 8 (C) 12 (D) 32 (E) 84

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2. Today is Thursday. What day will it be in 10 days time?

(A) Monday (B) Tuesday (C) Wednesday
(D) Saturday (E) Sunday

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3. Simon has a collection of 27 toy cars. He wants to put them into groups of 3 cars. How many groups will he have?

(A) 24 (B) 9 (C) 12 (D) 8 (E) 30

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4. I have a \$10 note and an ice-cream costs \$2.20. What is the greatest number of ice-creams I can buy?

(A) 3 (B) 4 (C) 5 (D) 6 (E) 7

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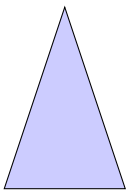
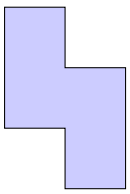
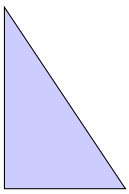
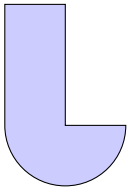
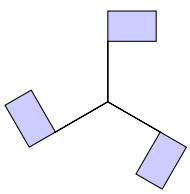
5. Which one of the following shapes has a line of symmetry?

(A) 

(B) 

(C) 

(D) 

(E) 

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6. Bill types a number into his calculator so that upside down, it looks like BILL. What is the number?

(A) 8111 (B) 8177 (C) 7713 (D) 3177 (E) 7718

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7. Tom wasn't feeling well. His doctor read his temperature at 1.8°C above normal, which is usually 37°C. What, in degrees Celsius, was Tom's temperature?

(A) 35.2 (B) 37.18 (C) 37.8 (D) 38.7 (E) 38.8

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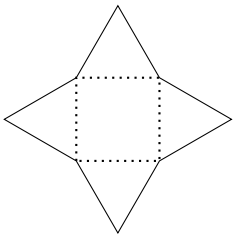
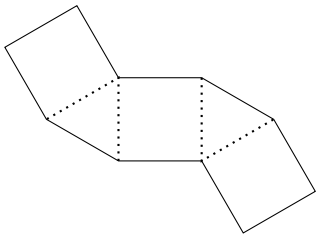
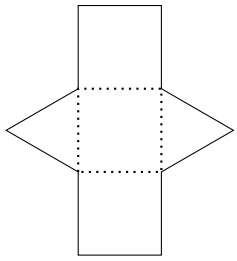
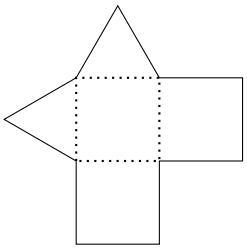
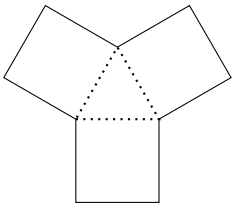
8. Which shape can make a pyramid if you fold along the dotted lines?

(A) 

(B) 

(C) 

(D) 

(E) 

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9. The chairs on the main ski lift at Thredbo are numbered from 26 to 100. How many such chairs are there?

(A) 24 (B) 25 (C) 74 (D) 75 (E) 76

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10. Cecily is 10 years older than Naida. Naida is 6 years younger than Joycelyn. If Cecily is now 42, how old is Joycelyn?

(A) 32 (B) 34 (C) 36 (D) 38 (E) 40

Questions 11 to 20, 4 marks each

11. Stuart and Susan are brother and sister. She says 'I have a sister' and he says 'I have a brother'. What is the smallest possible number of children in their family?

(A) 2 (B) 3 (C) 4 (D) 5 (E) 6

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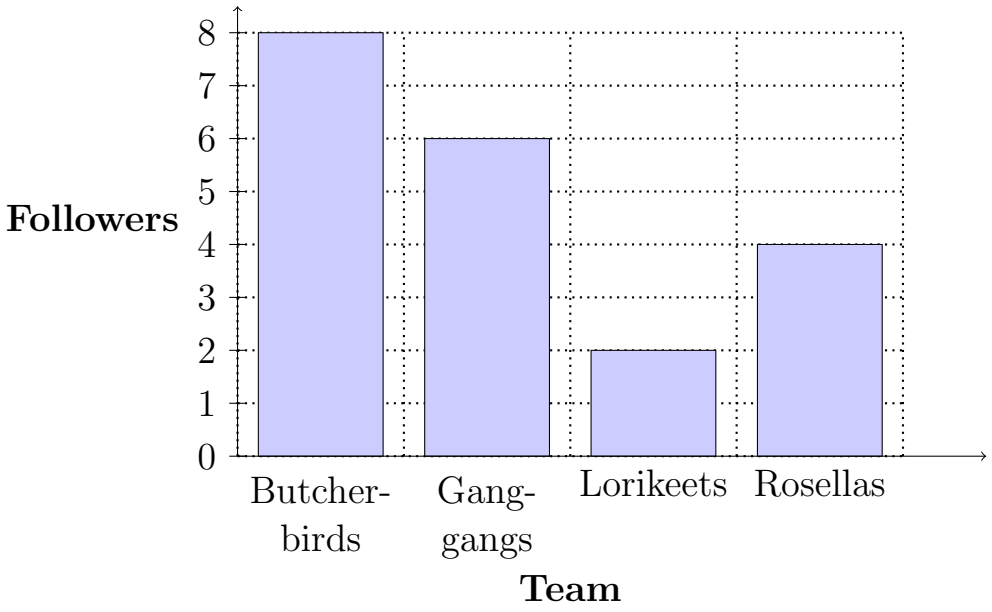
12. The year 5 students at my local school were surveyed to find which one of the four teams in the local football competition they followed.



How many more students followed the most popular team than followed the least popular team?

(A) 3 (B) 4 (C) 5 (D) 6 (E) 8

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13. Lesley needs to catch the school bus at 7:30 am on school mornings. She takes 25 minutes to get ready and 10 minutes to walk to the bus stop from home. In order to catch the bus, what is the latest time she can get up?

(A) 6:45 am (B) 6:55 am (C) 7:00 am (D) 7:05 am (E) 7:10 am

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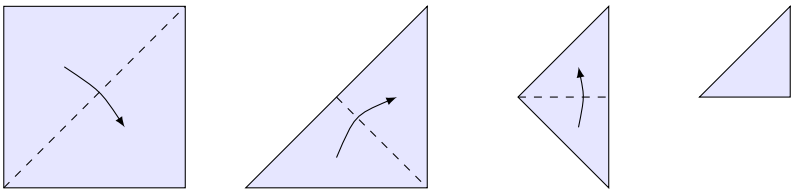
14. A square of paper is folded in half to make a triangle, then in half to make a smaller triangle, then in half again to make an even smaller triangle.



How many layers of paper are in the final triangle?

(A) 3 (B) 4 (C) 6 (D) 8 (E) 12

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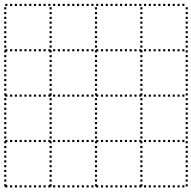
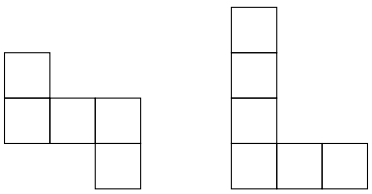
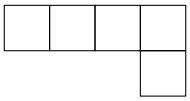
15. This 4×4 square grid can be covered by three shapes made from 1×1 squares. None of the shapes overlap.

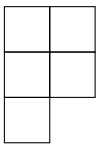


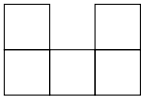
If two of the shapes are

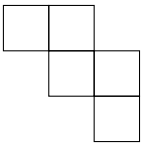


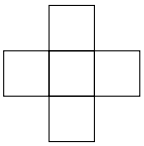
then the third shape is

(A) 

(B) 

(C) 

(D) 

(E) 

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16. Miranda ties two ribbons in her hair each day before school. She can choose from her school's colours of red, blue and white. She has a bag of ribbons with at least four of each colour in it. Without looking, she pulls out some ribbons. How many must she pull out to be sure of a pair of the same colour?

(A) 2 (B) 3 (C) 4 (D) 5 (E) 6

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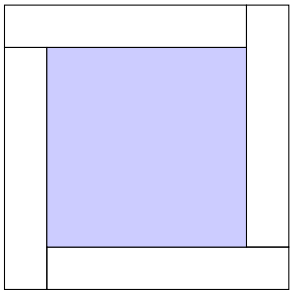
17. Four rectangles, each 100 cm long and 20 cm wide, are arranged around a square without overlapping, as shown.



How long is each side of the middle square?

(A) 60 cm (B) 80 cm (C) 90 cm
(D) 100 cm (E) 120 cm

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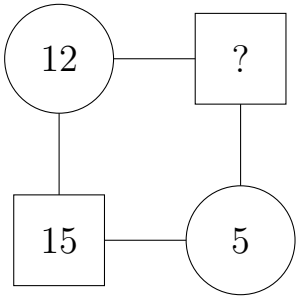
18. In this diagram, when you multiply the two numbers in the circles you get the same answer as when you multiply the two numbers in the squares. What is the missing number?



(A) 3 (B) 4 (C) 5
(D) 6 (E) 10

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19. Li has some small tiles, each 3 cm by 2 cm, which he puts together without overlapping to make a filled-in square. What is the smallest number of these tiles for which this can be done?

(A) 2 (B) 3 (C) 4 (D) 5 (E) 6

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20. A party game played with a six-sided dice is fair if the chance of winning is equal to the chance of losing each time the dice is rolled. Which one of these games is fair?

(A) You win if you roll a 6.

(B) You win if you roll a 2 or a 5.

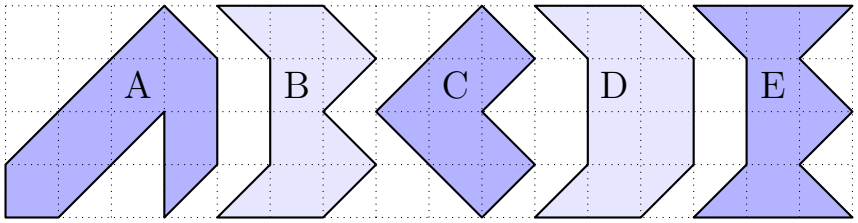
(C) You win if you roll a number greater than 4.

(D) You win if you roll a number less than 3.

(E) You win if you roll an odd number.

Questions 21 to 25, 5 marks each

21. Which of the shaded areas below is the largest?



(A) A (B) B (C) C (D) D (E) E

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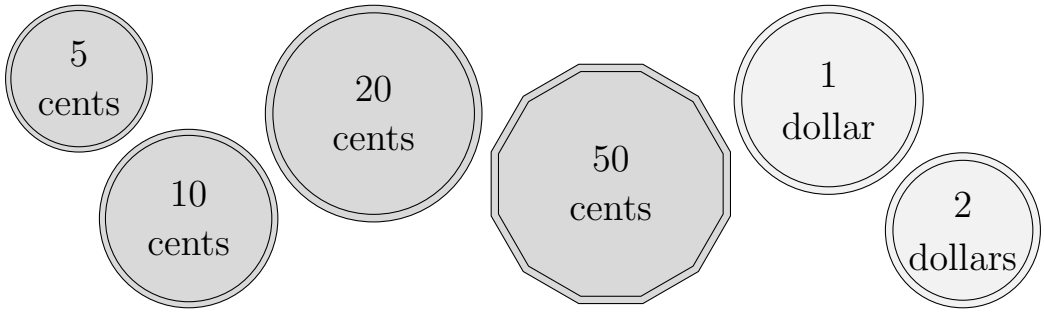
22. Joseph had some cash in his pocket. He had three of each of the Australian coins.



When he took them out to count them, he dropped the coins and lost some down the drain! He found \$11.05. How much did he lose?

(A) \$1.05 (B) 90c (C) 60c (D) 50c (E) 45c

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23. There are 15 children attending a birthday party and we order some pizzas. Each pizza will be sliced into 8 equal pieces. What is the smallest number of pizzas we need to order to make sure that each child can eat 3 pieces?

(A) 4 (B) 5 (C) 6 (D) 7 (E) 8

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24. Jack is 8 years old and his sister Charlotte is 14 years old. When Jack's and Charlotte's ages add up to 48, how old will Jack be?

(A) 18 (B) 21 (C) 22 (D) 24 (E) 31

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25. In this magic square, the even numbers

$$2, 4, 6, \ldots, 18$$

are placed so that the sums of the numbers in each row, column and diagonal are equal. What is the sum of the two numbers in the shaded squares?

	18	
14		6
		16

(A) 12 (B) 14 (C) 18 (D) 22 (E) 28

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. Six different whole numbers, chosen from the numbers from 1 to 100, add up to 100. What is the greatest possible value of the largest of these numbers?

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27. A number is *palindromic* if it reads the same forwards as backwards. For example, 686 is palindromic. How many numbers from 100 to 300 are palindromic?

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28. A group of 64 students went rowing. They were given 12 rowing boats, each boat either large or small. The large boats each carried 6 students and the small ones 4 students. How many large boats were they given?

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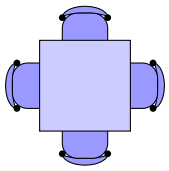
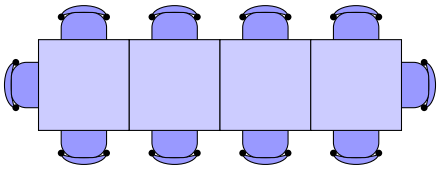
29. In the school hall there are square tables and chairs to put around them.



Each table is big enough to seat 4 people. The tables can be joined in a long row to seat more people. For example, a row of four tables can seat 10 people.



If the school needs to set up three long rows to seat 240 people, how many tables are needed?

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30. How many 2-digit numbers are there where one digit is a multiple of the other and neither digit is zero? For example, 11 and 26, but not 96 or 40.
