

PiAcademy

11+ Mathematics SET Style - Pack 2 Test Paper - 6

Instructions:

1. The time allowed is 50 minutes for 46 questions.
2. This is a multiple-choice test and each question carries 1 Mark.
3. Answers should be clearly marked in pencil on the provided answer sheet.
4. Do not turn over the booklet until you are told to do so.
5. No Marks are lost for an incorrect answer.
6. If you have marked the wrong answer, erase it and mark the new one. Make sure that your final answer is clear.

Symbols used:



Go to the next page.

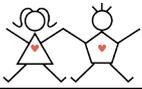


Do not turn the page until told to do so.



Stop working and await instructions.

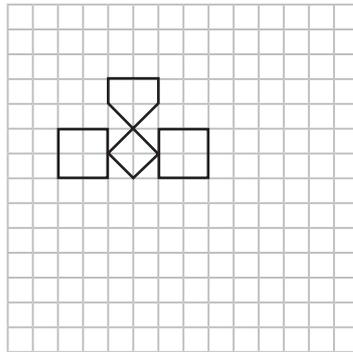
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- 1 $\div 8 = 2.10$ cm
- (A) 8.4 cm (B) 9.6 cm (C) 16.8 cm (D) 16.5 cm (E) 14.6 cm

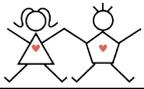
- 2 What number is halfway between - 6 and 16?
- (A) 4 (B) 5 (C) 6 (D) -5 (E) 10

- 3 Work out the area of the shape below.



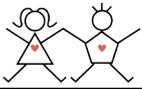
- (A) 25 sq. units (B) 15 sq. units (C) 13 sq. units
(D) 20 sq. units (E) 17 sq. units
- 4 Sarah thinks of a number that follows the rules below.
The number is odd.
The number lies between 4700 and 5500.
The number is divisible by 7.
Which of these numbers could Sarah be thinking of?
- (A) 4712 (B) 4682 (C) 5321 (D) 5439 (E) 5031



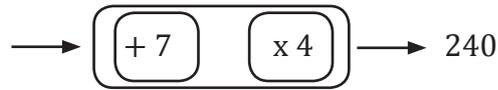


- 5 The perimeter of a triangle is 60 cm. The sides are in the ratio 4:3:5. What is the length of the shortest side?
- (A) 15 cm (B) 6 cm (C) 12 cm (D) 5 cm (E) 20 cm
- 6 Hardy is currently six times his daughter's age. In 2 years time Hardy will be 32. How old will his daughter be then?
- (A) 7 years (B) 5 years (C) 3 years (D) 1 years (E) 8 years
- 7 The six angles of two different triangles are listed in increasing order below.
 $42^\circ, 53^\circ, 60^\circ, 85^\circ, 92^\circ$
What is the first angle in the list?
- (A) 28° (B) 23° (C) 25° (D) 30° (E) 45°
- 8 Ryan started with the number 4 and counted up in threes. He got the numbers 4, 7, 10, 13, ... Henry started with the number 5 and counted up in twos. He got the numbers 5, 7, 9, ... What is the difference between Ryan's 40th number and Henry's 40th number?
- (A) 38 (B) 35 (C) 48 (D) 40 (E) 42
- 9 What is the missing number in the following sum?
 $5060700 = 5,000,000 + \dots + 700$
- (A) 6000 (B) 60000 (C) 600000 (D) 67000 (E) 66000





- 10 Work out the input when the output is 240.



- 11 40 people were asked if they own a car or a bike. 12 of them own a bike, 20 of them own a car and 6 of them own both a car and a bike. How many of them own neither a car nor a bike?

(A) 9 (B) 14 (C) 12 (D) 15 (E) 2

- 12 Hannah went to watch a three-hour movie but the seating conditions were so awful that she only stayed for 30% of it. How many minutes of the movie did she see?

(A) 27 min (B) 36 min (C) 54 min (D) 45 min (E) 30 min

- 13 A doll and a toy car cost £30 in total. Three dolls and two toy cars cost £70 in total. How much does a toy car cost?

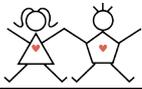
(A) £40 (B) £20 (C) £50 (D) £30 (E) £10

- 14 Write down the answer to the calculation.

$$(99 \times 43019) + (101 \times 43019)$$

(A) 4301900 (B) 8603800 (C) 430190
(D) 860380 (E) 8600400





- 15 Harley spends £4.70 on a phone case and a pair of earrings at Claire's. The phone case costs 20p more than the pair of earrings. How much does the phone case cost?

(A) £2.50 (B) £2.45 (C) £2.55 (D) £2.40 (E) £2.30

- 16 This set of numbers has a mean of 30. What is the median of this set?

20, 30, 40, ?, 28

(A) 20 (B) 80 (C) 60 (D) 30 (E) 28

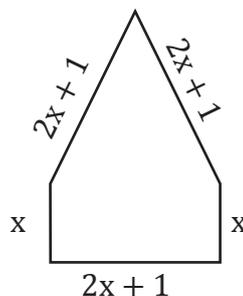
- 17 If I face East and turn 135 degrees clockwise, in which direction am I now facing?

(A) South - West (B) North - East (C) South - East
(D) North - West (E) South

- 18 $102.506 \text{ cm} = 1 \text{ m} + \dots\dots\dots + 0.5 \text{ cm}$

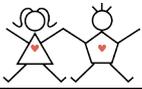
(A) 2.06 cm (B) 2.006 m (C) 0.0206 m
(D) 20.06 mm (E) 0.2006 m

- 19 If $x = 1.5$, what is the value of the perimeter of this shape?

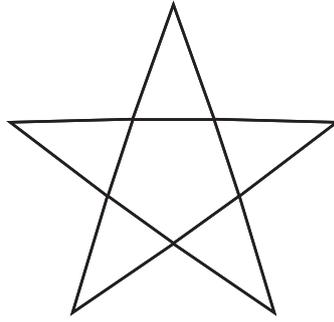


(A) 15 (B) 12 (C) 13 (D) 18 (E) 21





- 20 How many triangles of any size are there in this diagram?



- (A) 8 (B) 10 (C) 12 (D) 9 (E) 15

- 21 Hiring a car costs £30 per booking plus £5 per hour. Suzan hires the car and pays £80. How many hours does Suzan hire the car for?

- (A) 10 hours (B) 9 hours (C) 12 hours
(D) 15 hours (E) 11 hours

- 22 $231 \times 47 = 10857$

Use the answer to the multiplication above to answer the following question.

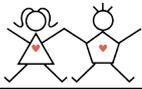
What is 462×94 ?

- (A) 21720 (B) 21718 (C) 21714
(D) 43424 (E) 43428

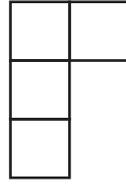
- 23 If $12x - y = 42$ and $12y - x = 29$, what is the value of $x - y$?

- (A) 2 (B) 13 (C) 3 (D) 1 (E) 5



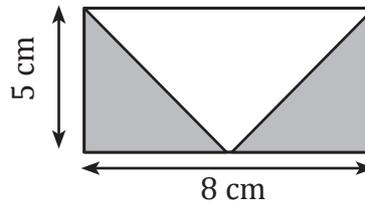


- 24 If the area of each square is 16 cm^2 , what is the outer perimeter of the whole shape?
(The diagram is not drawn to scale.)



- (A) 32 cm (B) 64 cm (C) 40 cm (D) 28 cm (E) 42 cm

- 25 What is the area of the unshaded region, in cm^2 ?



- (A) 20 cm^2 (B) 40 cm^2 (C) 25 cm^2 (D) 30 cm^2 (E) 32 cm^2

- 26 The perimeter of a square white board is 64 cm. A teacher draws a line on the board dividing it into two identical rectangular spaces. What is the area of one rectangular space?

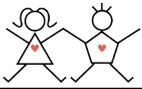
- (A) 128 cm^2 (B) 122 cm^2 (C) 136 cm^2
(D) 142 cm^2 (E) 256 cm^2

- 27 What is the 9th number of this sequence?

0, 1, 4, 9, ...

- (A) 80 (B) 64 (C) 81 (D) 16 (E) 36





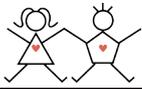
- 28** Katie is sorting out some coins that she has received as pocket money from her mum. She has:

40	5p coins
35	2p coins
30	10p coins
15	20p coins
5	50p coins

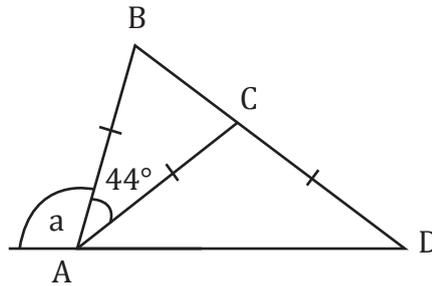
How much money does she have in total?

- (A) £112 (B) £11.20 (C) £10.20 (D) 1350p (E) £11.50
- 29** Hardy thinks of a positive whole number. When he divides 30 by his number, the answer is also a whole number. How many different numbers could Hardy have thought of?
- (A) 12 (B) 6 (C) 10 (D) 8 (E) 4
- 30** Which of these calculations produces a multiple of 7?
- (A) $1 + 2 \times 3 + 4$ (B) $1 \times 2 + 3 \times 4$ (C) $1 + 2 \times 3 \times 4$
(D) $1 \times 2 \times 3 \times 4$ (E) $1 \times 2 + 3 + 4$
- 31** From the fractions below, choose the smallest.
- (A) $\frac{3}{4}$ (B) $\frac{2}{3}$ (C) $\frac{7}{10}$ (D) $\frac{2}{5}$ (E) $\frac{65}{10}$





- 32 In the diagram, $AB = AC = CD$.
What is the size of angle a ?



- (A) 104° (B) 96° (C) 95° (D) 102° (E) 94°

- 33 Simplify the expression: $5a - 12b + 3a + 9b$

- (A) $8a - 3b$ (B) $11ab$ (C) $2a + 3b$ (D) $5a + 8b$ (E) $3a + 7b$

- 34 Which of these sums will give the same answer as the problem below?

$$\frac{9}{5} + \frac{12}{10} = \text{---}$$

- (A) $\frac{3}{2} + \frac{6}{3}$ (B) 15×0 (C) $4.5 - 0.5$ (D) $1^2 + 3$ (E) $3.5 \div 35 \times 30$

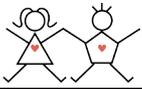
- 35 Graham has 42 colourless marbles. He colours 28 of them. What fraction of the marbles does he colour? Give your answer in its simplest form.

- (A) $\frac{3}{4}$ (B) $\frac{1}{2}$ (C) $\frac{2}{3}$ (D) $\frac{4}{5}$ (E) $\frac{1}{3}$

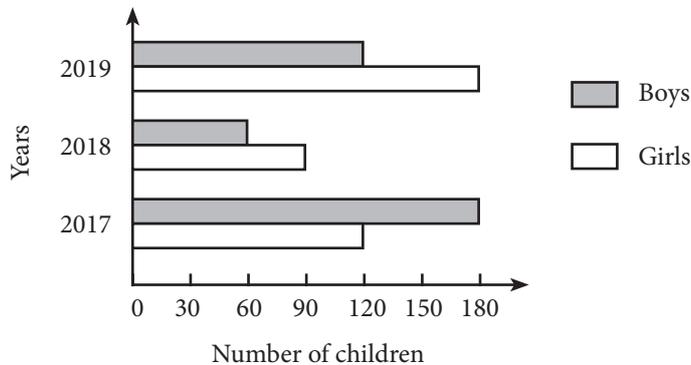
- 36 A DVD plays for 3 hours. It is then rewound at 15x the speed it plays at. How many minutes does it take to rewind the DVD completely?

- (A) 20 minutes (B) 15 minutes (C) 18 minutes
(D) 25 minutes (E) 12 minutes





- 37** The number of children who attended a summer camp in Wales over the past three years is shown on the bar chart below. Work out the mean number of children who attended this camp over these three years.

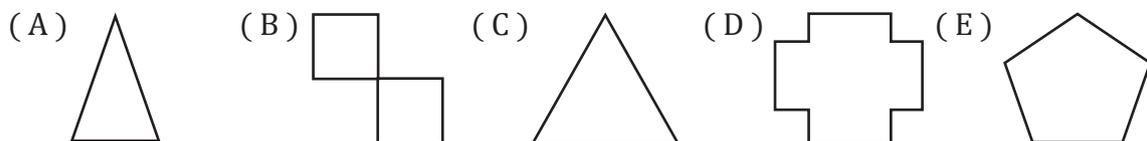


- (A) 150 (B) 200 (C) 250 (D) 275 (E) 325

- 38** The distance between Ambridge and Vice City is 420 km. Charlie leaves Ambridge at 09:00. What should Charlie's average travelling speed be if he wants to arrive in Vice City by 16:00?

- (A) 45 km/hr (B) 50 km/hr (C) 42 km/hr
(D) 65 km/hr (E) 60 km/hr

- 39** Which of the following shapes has order of rotational symmetry as 2?



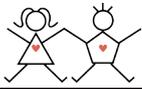
- 40** Here are the first four terms of a number sequence.

17, 21, 25, 29

Which of the following numbers will also be in this sequence?

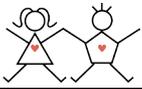
- (A) 43 (B) 58 (C) 69 (D) 51 (E) 75



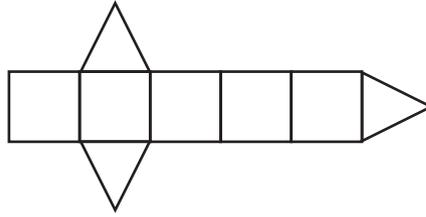


- 41 Each year, a sack race competition is held on the second Wednesday of February. What is the latest possible date of the competition in any given year?
- (A) 14th February (B) 21st February (C) 15th February
(D) 22nd February (E) 28th February
- 42 A car's clock currently shows that the car has travelled a total distance of 23456 miles. What is the next palindromic number that will appear on the car's clock?
- (A) 25452 (B) 24642 (C) 24542 (D) 23532 (E) 23632
- 43 Solve:
 $4 \times (6 + 3) - 8 \div 4$
- (A) 32 (B) 28 (C) 34 (D) 41 (E) 52
- 44 A restaurant owner wants to write WELCOME on a board behind the customer seating in such a way that a customer looking in the mirror reads the word correctly. Which of the following should the owner write on the board?
- (A) WELCOME (B) WELCOMF (C) EMOCLEW
(D) MFOCLEW (E) MFOCME





- 45 How many lines of symmetry does this shape have?



- (A) 0 (B) 2 (C) 1 (D) 3 (E) 4

- 46 Laura is pouring milk from a 4L container into identical cups. Each cup has a capacity of 125 ml. How many cups can Laura fill if she uses all the milk from the container?

- (A) 25 cups (B) 30 cups (C) 12 cups (D) 20 cups (E) 32 cups



11+ Maths SET Style (Pack 2) - Test Paper 6

ANSWER MARKING SHEET



Name: _____

Date: _____

School Name: _____

Please mark boxes with a thin horizontal line like this .

1	2	3	4	5	6	7	8	9	10
A <input type="checkbox"/>									
B <input type="checkbox"/>									
C <input type="checkbox"/>									
D <input type="checkbox"/>									
E <input type="checkbox"/>									
11	12	13	14	15	16	17	18	19	20
A <input type="checkbox"/>									
B <input type="checkbox"/>									
C <input type="checkbox"/>									
D <input type="checkbox"/>									
E <input type="checkbox"/>									
21	22	23	24	25	26	27	28	29	30
A <input type="checkbox"/>									
B <input type="checkbox"/>									
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D <input type="checkbox"/>									
E <input type="checkbox"/>									
31	32	33	34	35	36	37	38	39	40
A <input type="checkbox"/>									
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C <input type="checkbox"/>									
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41	42	43	44	45	46				
A <input type="checkbox"/>									
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For Parents use only

Marks Scored: Time taken:

Comments:

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