

PiAcademy

11+ Mathematics SET Style - Pack 3 Test Paper - 9

Instructions:

1. The time allowed is 50 minutes for 48 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.

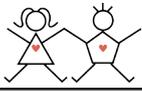


Do not turn the page until told to do so.



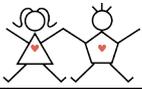
Stop working and await instructions.

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- 1 What is the value of the digit 6 in the number 51.246?
- (A) six hundreds (B) six hundredths (C) six thousands
(D) six thousandths (E) six tenths
- 2 The sum of three consecutive numbers is 96. What is the smallest number among them?
- (A) 30 (B) 31 (C) 32 (D) 33 (E) 34
- 3 Calculate:
- $$2475 - 5471 + 6754$$
- (A) 5738 (B) 6528 (C) 3578 (D) 3758 (E) 3128
- 4 Steve, John and Jim decided to share 38 pencils. Steve took 5 pencils and John took two times as many as Jim. How many pencils did John get?
- (A) 33 pencils (B) 22 pencils (C) 11 pencils
(D) 15 pencils (E) 12 pencils
- 5 One third of the students in a school are boys. $\frac{2}{3}$ of these boys are studying French. What fraction of boys are studying French?
- (A) $\frac{1}{9}$ (B) $\frac{2}{3}$ (C) $\frac{1}{6}$ (D) $\frac{5}{9}$ (E) $\frac{2}{9}$

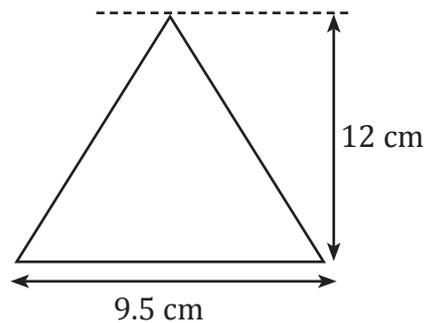




6 What is 76 as a product of its prime factors?

- (A) $19 \times 2 \times 3$ (B) $2 \times 4 \times 19 \times 2$ (C) $2 \times 3 \times 19 \times 2$
(D) $2 \times 2 \times 19$ (E) $19 \times 3 \times 3$

7 Calculate the area of the triangle shown below.



(Diagram not to scale)

- (A) 57 cm^2 (B) 114 cm^2 (C) 68 cm^2
(D) 124 cm^2 (E) 59 cm^2

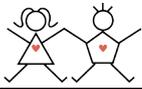
8 The number of people in a city is 229567. 92671 are men and 46751 are children. Calculate the number of women in the city.

- (A) 80145 (B) 90154 (C) 90145 (D) 80154 (E) 91145

9 What is the expanded form of 24568?

- (A) $20000 + 40000 + 500 + 60 + 8$ (B) $20000 + 4000 + 500 + 60 + 8$
(C) $2000 + 4000 + 500 + 60 + 8$ (D) $2000 + 4000 + 5000 + 60 + 8$
(E) $20000 + 400 + 500 + 60 + 8$





10 Abel bought 6.75 m^2 metal for £81. Find the cost of one square metre of the metal.

- (A) £15 (B) £14 (C) £12 (D) £11 (E) £10

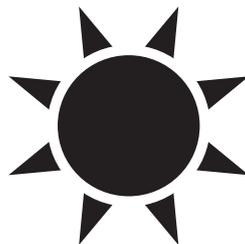
11 Lucy's presentation must be less than 100 slides long. The slides of a presentation can be printed 3 per page or 5 per page. What is the maximum number of slides that Lucy can print so that she exactly fills a whole number of pages?

- (A) 95 (B) 90 (C) 85 (D) 80 (E) 75

12 Andrew currently is p years old and his son James is 22 years younger than him. Find James' current age if the sum of their ages in 4 years time is 76 years.

- (A) 40 years (B) 22 years (C) 23 years
(D) 21 years (E) 24 years

13 What is the order of rotational symmetry of the below shape?

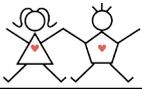


- (A) 8 (B) 9 (C) 7 (D) 10 (E) 6

14 Lena thinks of a 4 digit number where the first and last digits are both even. What is the largest number can Lena think of?

- (A) 9889 (B) 8008 (C) 8998 (D) 2992 (E) 2002





15 What percentage is 480g of 3kg?

- (A) 10% (B) 18% (C) 12% (D) 16% (E) 18%

16 Find the perimeter of the triangle if $x = 15$.

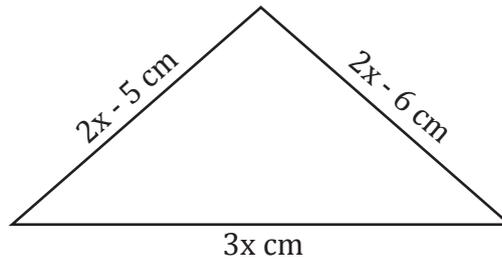
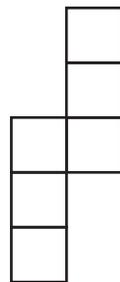


Diagram not to scale

- (A) 90 cm (B) 84 cm (C) 95 cm (D) 94 cm (E) 74 cm

17 What is the order of rotational symmetry of the net shown below?

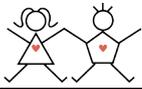


- (A) 1 (B) 3 (C) 2 (D) 0 (E) 4

18 About 298 cricket balls are manufactured by a company per day. What is the best way to estimate how many cricket balls are manufactured in 127 days?

- (A) 250×100 (B) 300×130 (C) 300×120
(D) 300×100 (E) 200×120

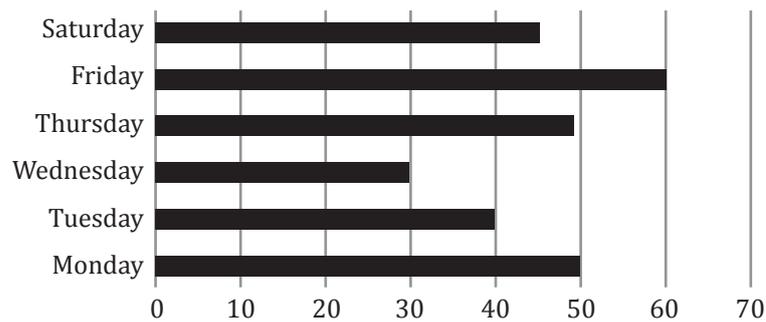




- 19 A flock of sheep gives 10 litres of milk each day. Each sheep produces one fifth of the total milk each day. How many sheep are there in the flock?

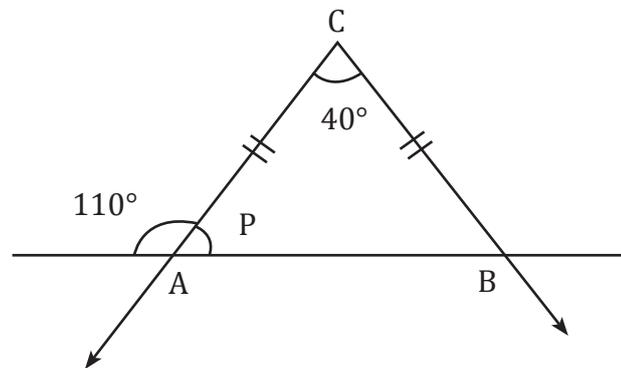
(A) 10 (B) 5 (C) 4 (D) 3 (E) 6

- 20 The bar chart shows the number of visitors to a shop during a week. On which day did the modal number of visitors go to the shop?



(A) Monday (B) Tuesday (C) Wednesday
(D) Thursday (E) Friday

- 21 Find the value of p .

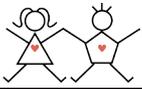


(A) 50° (B) 60° (C) 70° (D) 55° (E) 65°

- 22 Glenn thinks of a number, multiplies it by 3 and then subtracts 4. The result is 32. What is the number which Glenn was thinking of?

(A) 15 (B) 14 (C) 13 (D) 12 (E) 11





- 23 A two digit number is written at random. What is the probability that the number will be an even number?

(A) $\frac{1}{10}$ (B) $\frac{1}{90}$ (C) $\frac{1}{5}$ (D) $\frac{1}{2}$ (E) $\frac{2}{5}$

- 24 A ceiling measures 3m by 4m. It is to be filled with tiles measuring 30 cm by 40 cm. How many tiles are required?

(A) 1000 (B) 100 (C) 150 (D) 1050 (E) 1500

- 25 There are 50 people in a room.

22 of them speak French.

24 of them speak German.

15 of them speak both French and German.

How many speak neither French nor German?

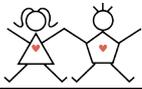
(A) 31 (B) 19 (C) 15 (D) 20 (E) 18

- 26 Kane, Karen and Kat shared a box of chocolates. Kane ate $\frac{2}{5}$ of the chocolates. Karen and Kat shared the rest of the chocolates in the ratio 1 : 2. Kat got 10 more than Karen.

How many chocolates were there in the box?

(A) 20 (B) 30 (C) 15 (D) 50 (E) 40

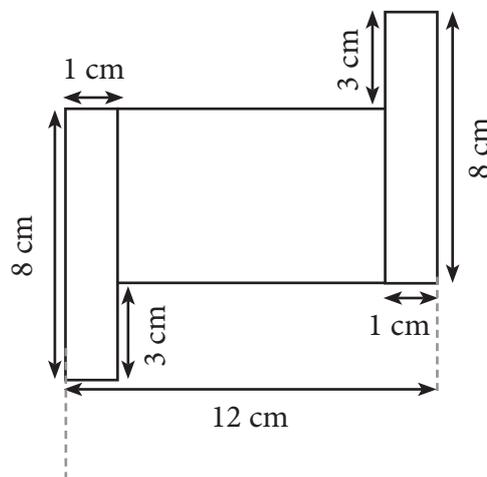




- 27 Amber turns 50 degrees anticlockwise, 85 degrees clockwise and finally 60 degrees anticlockwise. If Amber wants to return to her original position by turning through the smallest possible angle, in which direction should she turn and what should the angle be?
- (A) 25 degrees clockwise (B) 45 degrees anticlockwise
(C) 25 degrees anticlockwise (D) 45 degrees clockwise
(E) 35 degrees clockwise

- 28 The mean of four numbers a , 3, 5 and b is 6 and the range of the numbers is 10. What are the values of a and b ?
- (A) 6 and 10 (B) 3 and 13 (C) 4 and 13
(D) 5 and 13 (E) 3 and 10

- 29 Find the perimeter of the shape shown below.

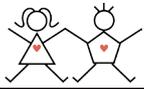


- (A) 44 cm (B) 45 cm (C) 46 cm (D) 47 cm (E) 48 cm

- 30 In a class of 45 students, there are 25 boys and 10 of them speak German. 8 of the girls can speak German. If a student is selected randomly from the class, what is the probability that the selected student can speak German?

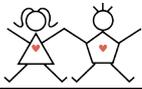
- (A) $\frac{1}{5}$ (B) $\frac{2}{5}$ (C) $\frac{3}{5}$ (D) $\frac{1}{3}$ (E) $\frac{2}{3}$



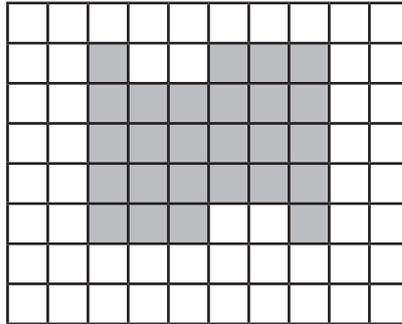


- 31** A right angled triangle has an angle of 62° . What is the size of the smallest angle in the triangle?
- (A) 38° (B) 48° (C) 28° (D) 58° (E) 35°
- 32** The cost of the same drink in three different shops is 50p, 55p, and 54p. What is the mean price of the drink across the three shops?
- (A) 51p (B) 52p (C) 53p (D) 54p (E) 55p
- 33** The length of a rectangle is 10 cm more than the width. The perimeter of the rectangle is 84 cm. What is the length of the rectangle?
- (A) 16 cm (B) 26 cm (C) 36 cm (D) 18 cm (E) 20 cm
- 34** A large box contains 10 small boxes and each small box contains 13 apples. How many apples are there in 5 large boxes?
- (A) 650 (B) 450 (C) 130 (D) 500 (E) 260
- 35** George can cycle 10 km in half an hour. Assuming he continues at this speed, how long does it take George to cycle 50 km?
- (A) 2 hours (B) 3.5 hours (C) 3 hours
(D) 2.5 hours (E) 1.5 hours





- 36 What is the minimum number of squares that needs to be shaded for the figure shown below to have at least one line of symmetry?



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

- 37 The pictogram shows the number of minutes John cycled during a week.

Monday	▲ ▲ ▲ ▲ ▼
Tuesday	▲ ▲ ▲ ▲ ▲ ▼
Wednesday	▲ ▲ ▲ ▼
Thursday	▲ ▲ ▲
Friday	▲ ▲ ▲ ▲ ▲ ▼
Saturday	▲ ▲ ▲ ▼
Sunday	▲ ▲ ▲

▲ → 10 minutes ▼ → 5 minutes

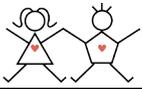
How many more minutes did he cycle on Friday compared to Monday?

- 38 If Bill and Ben shared £100 between them in the ratios given below, using which ratio would Bill receive the smallest share?

3 : 5, 4 : 8, 4 : 5, 6 : 18, 6 : 8

- (A) 3 : 5 (B) 4 : 8 (C) 4 : 5 (D) 6 : 18 (E) 6 : 8





39 What percentage is 25p of £5.00?

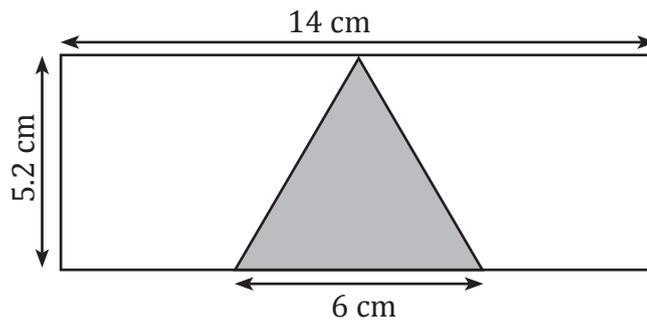
- (A) 15% (B) 25% (C) 5% (D) 20% (E) 10%

40 Starting with 50 we subtract 49 then add 48, then subtract 47 then add 46 and we carry on in this way through all of the whole numbers from 50 downwards until we reach the number 1 (as shown below). What is the final answer?

$$50 - 49 + 48 - 47 + 46 - 45 + \dots \text{and so on} \dots + 2 - 1 = ?$$

- (A) 24 (B) 25 (C) 26 (D) 27 (E) 28

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



- (A) 57.2 cm^2 (B) 67.2 cm^2 (C) 77.2 cm^2
(D) 55.2 cm^2 (E) 75.2 cm^2

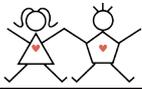
42 Amy bought a burger at £7.90, chips at £4.20 and a box of chocolates at £6.50. How much did Amy spend?

- (A) £15.60 (B) £16.80 (C) £15.80 (D) £18.60 (E) £10.60

43 Ben and Jack have a total of 78 books. If Jack has 12 more books than Ben, how many books does Ben have?

- (A) 45 (B) 33 (C) 66 (D) 35 (E) 50





44 It takes Mary 40 minutes to drive to work and 15 minutes to walk from the car park to her office. At what time should she leave the house in order to reach the office at 10:00 AM?

- (A) 9:05 AM (B) 9:15 AM (C) 9:25 AM
(D) 9:00 AM (E) 9:20 AM

45 A farm has a total of 84 sheep and cows. The ratio of the number of cows to the number of sheep is 2:5. How many sheep are there on the farm?

- (A) 60 (B) 24 (C) 30 (D) 44 (E) 25

46 A bus travels 120 km in 75 minutes. How long will it take to travel 600 km at this speed?

- (A) 5 hours 10 minutes (B) 5 hours 20 minutes
(C) 6 hours 15 minutes (D) 7 hours 5 minutes
(E) 6 hours 25 minutes

47 The distance between two stations is approximately $8\frac{2}{5}$ miles.
If Stella walks $\frac{1}{3}$ of the way, how far does she walk?

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

48 Two numbers have a difference of 24. The larger of the numbers is three times the smaller. What is the smaller number?

- (A) 24 (B) 36 (C) 12 (D) 48 (E) 18



11+ Maths SET Style (Pack 3) - Test Paper 9

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"/>									
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11	12	13	14	15	16	17	18	19	20
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31	32	33	34	35	36	37	38	39	40
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41	42	43	44	45	46	47	48		
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For Parents use only

Marks Scored: Time taken:

Comments:

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