



Kent Test Style 11 +

Maths

Sample paper 1

Time allowed: 45 minutes

Instructions

This is a multiple choice test in which you should mark your answer on the separate answer sheet. There is only one answer for each question. Rough working can be completed on a separate sheet of paper.

Full name _____

Mathematics Paper 3

MATHS PAPER 3 - 50 QUESTIONS

This is a multiple choice test in which you should mark your answer on the separate answer sheet. There is only one answer for each question. Rough working can be completed on a separate sheet of paper.

1. A school orders 248 exercise books in September and 376 in October.

They already had 125 in stock. How many exercise books do they have altogether?

- A) 719
- B) 739
- C) 749
- D) 759
- E) 769

2. A number is multiplied by 6 and then 15 is added.

The result is 99. What was the original number?

- A) 12
- B) 13
- C) 14
- D) 15
- E) 16

3. A shop reduces the price of a jacket from £80 to £68. What percentage discount is this?

- A) 10%
- B) 12%
- C) 15%
- D) 18%
- E) 20%

MATHS PAPER 3 - 50 QUESTIONS

4. A train leaves at 09:35 and arrives at 11:20. How long is the journey?

- A) 1 h 35 min
- B) 1 h 45 min
- C) 1 h 40 min
- D) 1 h 50 min
- E) 2 h

5. The perimeter of a rectangle is 54 cm. Its length is 16 cm. What is its width?

- A) 11 cm
- B) 12 cm
- C) 13 cm
- D) 14 cm
- E) 15 cm

6. A recipe uses $\frac{3}{5}$ of a 1 kg bag of flour. How many grams of flour are used?

- A) 300 g
- B) 400 g
- C) 500 g
- D) 600 g
- E) 700 g

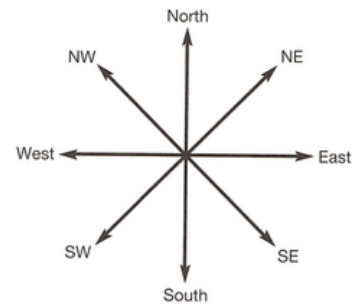
7. A number is rounded to 4500. Which of these could be the original number?

- A) 4449
- B) 4550
- C) 4549
- D) 4551
- E) 4600

MATHS PAPER 3 - 50 QUESTIONS

8. If I face West and turn anti-clockwise 225 degrees, which direction will I be facing?

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



9. If $3.26 \times 49 = 157.74$, what is 32.6×4.9 ?

- A) 157.74
- B) 15.774
- C) 1.5774
- D) 1577.4
- E) 15774

10. A bus travels 18 km in 30 minutes at a constant speed. How far will it travel in 2 hours?

- A) 54 km
- B) 60 km
- C) 66 km
- D) 72 km
- E) 80 km

11. There are red and blue counters in a bag in the ratio 3:5. There are 40 counters altogether. How many are red?

- A) 10
- B) 12
- C) 15
- D) 20
- E) 25

MATHS PAPER 3 - 50 QUESTIONS

12. What is the value of $3^2 + 4^2$

- A) 12
- B) 20
- C) 25
- D) 30
- E) 49

13. Look at the data table. How many visitors came during the week?

- A) 820
- B) 830
- C) 840
- D) 850
- E) 860

| Day | Visitors |
|-----|----------|
| Mon | 145 |
| Tue | 172 |
| Wed | 168 |
| Thu | 190 |
| Fri | 175 |

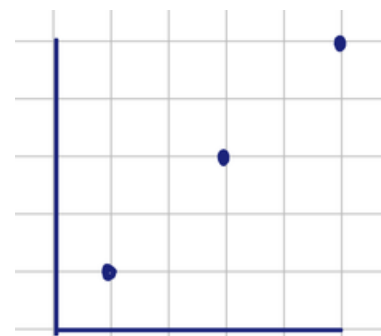
14. Look at the data table. Which day was the number of visitors closest to the mean?

- A) Mon
- B) Tue
- C) Wed
- D) Thu
- E) Fri

| Day | Visitors |
|-----|----------|
| Mon | 145 |
| Tue | 172 |
| Wed | 168 |
| Thu | 190 |
| Fri | 175 |

15. What is the vertical distance between the lowest point and the highest point?

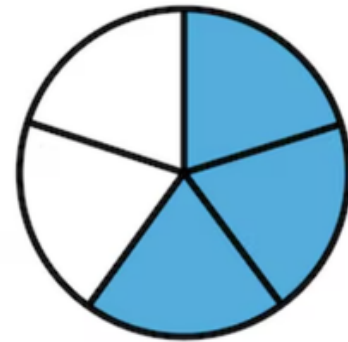
- A) 1
- B) 2
- C) 3
- D) 4
- E) 5



MATHS PAPER 3 - 50 QUESTIONS

16. What percentage of this pie chart is shaded?

- A 3%
- B 60%
- C 40%
- D 35%
- E 50%



17. A shop sells pencils in packs of 8. A school needs 94 pencils. What is the minimum number of packs needed?

- A) 10
- B) 11
- C) 12
- D) 13
- E) 14

18. What is the missing number?

4, 9, 19, 39, ___

- A) 59
- B) 69
- C) 79
- D) 89
- E) 99

19. What is the first 3 terms of the sequence: n^2 ?

- A) 1, 2, 3
- B) 2, 4, 6
- C) 1, 8, 27
- D) 1, 4, 9
- E) 2, 3, 4

MATHS PAPER 3 - 50 QUESTIONS

20. A cube has side length 5 cm. What is its volume?

- A) 25 cm^3
- B) 75 cm^3
- C) 100 cm^3
- D) 125 cm^3
- E) 150 cm^3

21. A tank currently contains 36 litres of water. It is filled at a rate of 2.5 litres per minute. How long will it take to fill the tank up so that it contains 61 litres?

- A) 8 min
- B) 9 min
- C) 10 min
- D) 11 min
- E) 12 min

22. A rectangular field measures 24 m by 15 m. A path 1 m wide runs all the way around the outside. What is the area of the path?

- A) 74 m^2
- B) 78 m^2
- C) 82 m^2
- D) 86 m^2
- E) 90 m^2

23. A shop offers "Buy 2 get 1 free". Each item costs £6.50. What is the total cost of buying 6 items?

- A) £26.00
- B) £32.50
- C) £33.00
- D) £39.00
- E) £45.50

MATHS PAPER 2 - 50 QUESTIONS

24. If the minute hand on a clock is pointing at 12 and it rotates 240 degrees anti-clockwise, what number is it now pointing to?

- A) 10
- B) 2
- C) 8
- D) 4
- E) 12



25. A sequence follows this rule: Multiply by 2, then subtract 1. Starting with 5, what is the third term?

- A) 9
- B) 11
- C) 13
- D) 15
- E) 17

26. A car travels 72 km in 1.2 hours. What is its speed?

- A) 50 km/h
- B) 55 km/h
- C) 60 km/h
- D) 65 km/h
- E) 70 km/h

27. The sum of three consecutive integers is 75. What is the largest number?

- A) 23
- B) 24
- C) 25
- D) 26
- E) 27

Note: Consecutive integers are 3 whole numbers next to each other. For Example: 4,5,6.

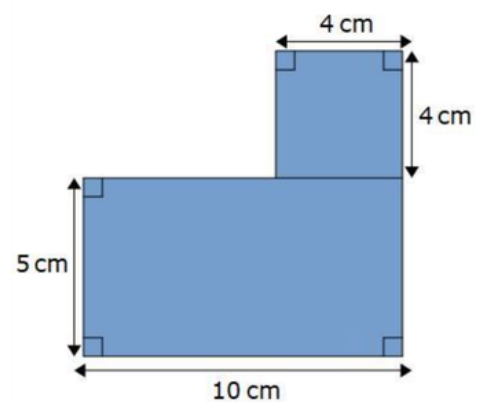
MATHS PAPER 2 - 50 QUESTIONS

28. What is $39 \times 726 + 61 \times 726$?

- A) 7260
- B) 72600
- C) 2451
- D) 22705650
- E) 10164

29. What is the area of this compound shape?

- A) 66 cm^2
- B) 90 cm^2
- C) 46 cm^2
- D) 23 cm^2
- E) 38 cm^2



30. A bag contains red, blue and green counters. The probability of picking a red counter is $\frac{1}{4}$, and blue is $\frac{1}{2}$. What is the probability of green?

- A) $\frac{1}{2}$
- B) $\frac{1}{3}$
- C) $\frac{1}{4}$
- D) $\frac{1}{5}$
- E) $\frac{1}{6}$

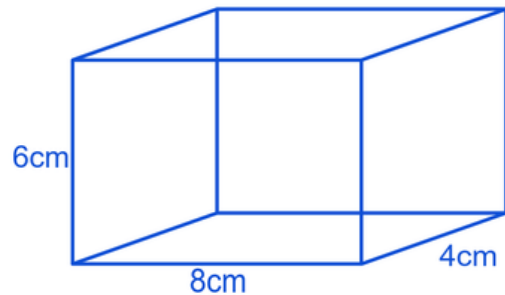
31. Which shape has rotational symmetry of Order 3?

- A) Square
- B) Rectangle
- C) Equilateral Triangle
- D) Regular Pentagon
- E) Scalene Triangle

MATHS PAPER 3 - 50 QUESTIONS

32. How many cubes with length 3 cm can fit into this cuboid?

- A) 12
- B) 192
- C) 27
- D) 8
- E) 4

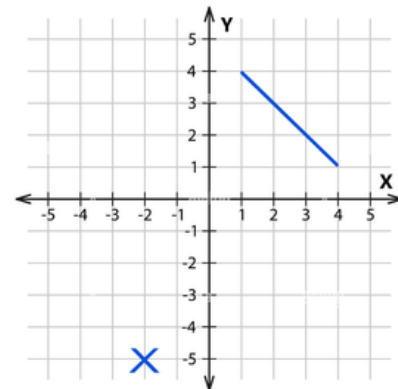


33. What 3D shape has 12 vertices, 8 faces and 18 edges?

- A) Cuboid
- B) Square Based Pyramid
- C) Octahedron
- D) Hexagonal Prism
- E) Pentagonal Prism

34. A line is shown on the coordinate grid below. Another line starting at the cross, will be perpendicular to this line, and the same length. What coordinate would be at the end of the line.

- A) (-5, -2)
- B) (1, -2)
- C) (2, -5)
- D) (2, -1)
- E) (-2, -5)



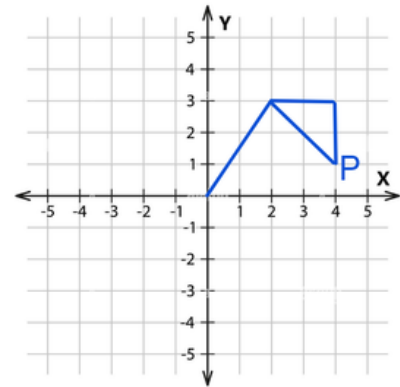
35. A number is written as 0.375. What fraction is this in its simplest form?

- A) $\frac{3}{10}$
- B) $\frac{3}{8}$
- C) $\frac{5}{8}$
- D) $\frac{7}{8}$
- E) $\frac{9}{10}$

MATHS PAPER 3 - 50 QUESTIONS

36. This shape is rotated 90 degrees anti-clockwise around point (0,0). Where would point P end up following this rotation?

- A) (-1, 4)
- B) (-4, 4)
- C) (0, 4)
- D) (-4, 1)
- E) (1, 4)



37. Which of the following numbers are prime?

- A) 1
- B) 9
- C) 21
- D) 49
- E) 53

38. The mean of five numbers is 18. Four of the numbers are 12, 15, 20 and 25. What is the fifth number?

- A) 16
- B) 18
- C) 20
- D) 22
- E) 28

39. A triangle has angles $3x$, $2x$ and x . What is x ?

- A) 20°
- B) 25°
- C) 30°
- D) 35°
- E) 40°

MATHS PAPER 3 - 50 QUESTIONS

40. A rectangle has area 96 cm^2 . Its length is 12 cm. What is its width?

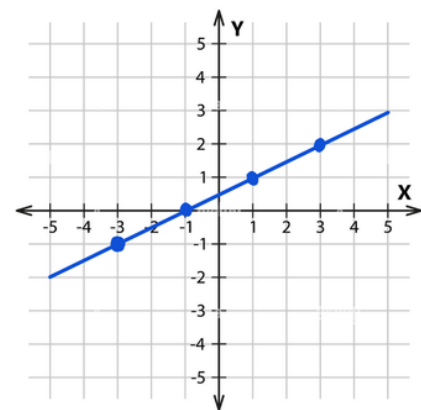
- A) 6 cm
- B) 7 cm
- C) 8 cm
- D) 9 cm
- E) 10 cm

41. A coat is £100. The shop increases prices by 10%. After this they increase prices again by 10%. What is the overall percentage increase?

- A) 10%
- B) 19%
- C) 20%
- D) 21%
- E) 22%

42. 4 coordinate points have been shown on the grid. If this pattern continued what would the 9th coordinate point be?

- A) (13,7)
- B) (15,8)
- C) (6,7)
- D) (9,4)
- E) (18,13)



43. A water tank is $\frac{3}{5}$ full. After adding 24 litres, it becomes full. What is the total capacity?

- A) 36 L
- B) 40 L
- C) 48 L
- D) 60 L
- E) 72 L

MATHS PAPER 3 - 50 QUESTIONS

44. A shop sells an item for £48 after a 20% discount. What was the original price?

- A) £54
- B) £56
- C) £58
- D) £60
- E) £62

45. Two numbers have a product of 96 and a sum of 20. What are the numbers?

- A) 8 and 12
- B) 6 and 16
- C) 4 and 24
- D) 3 and 32
- E) 2 and 48

46. There are two numbers. The first number is 40% of the second number. The difference between them is 36. What is the larger number?

- A) 50
- B) 60
- C) 72
- D) 90
- E) 120

47. A cube is painted on all faces and cut into 27 smaller cubes. How many small cubes have exactly one face painted?

- A) 6
- B) 8
- C) 12
- D) 18
- E) 24

MATHS PAPER 2 - 50 QUESTIONS

48. A car travels first 60 km at 30 km/h and then 60 km at 60 km/h. What is the mean speed for the whole journey?

- A) 36 km/h
- B) 40 km/h
- C) 45 km/h
- D) 48 km/h
- E) 50 km/h

49. The difference between the squares of two consecutive integers is 41. What is the larger integer?

- A) 19
- B) 20
- C) 21
- D) 22
- E) 23

50. Four different digits are chosen from 1, 2, 3, 4, 5 and arranged to make a 4-digit number. The number must be even and greater than 4,000. How many different numbers can be made?

- A) 10
- B) 12
- C) 14
- D) 15
- E) 18

| ANSWERS |
|--------------|
| 1. C |
| 2. C |
| 3. C |
| 4. B |
| 5. A |
| 6. D |
| 7. C |
| 8. E |
| 9. A |
| 10. D |
| 11. C |
| 12. C |
| 13. D |
| 14. B |
| 15. D |
| 16. B |
| 17. C |
| 18. C |
| 19. D |
| 20. D |
| 21. C |
| 22. C |
| 23. A |
| 24. D |
| 25. E |

| ANSWERS |
|--------------|
| 26. C |
| 27. D |
| 28. B |
| 29. A |
| 30. C |
| 31. C |
| 32. E |
| 33. D |
| 34. B |
| 35. B |
| 36. A |
| 37. E |
| 38. B |
| 39. C |
| 40. C |
| 41. D |
| 42. A |
| 43. D |
| 44. D |
| 45. A |
| 46. B |
| 47. A |
| 48. C |
| 49. C |
| 50. E |