# Maths Paper 

## 11+

Name: $\qquad$
Candidate Number $\qquad$
Seat Number $\qquad$

This paper has 50 questions, and you have 40 minutes to complete the test.

Read the questions carefully.
If you cannot answer a question, do not waste time on it. Move on to the next question and come back if you have time later.

Answers must be entered on the paper.
You may do any working out on this test paper, or on the rough paper supplied.

1. What fraction of a kilometre is 425 m ?

Answer: $\qquad$
2. From the picture below, what is the ratio of knives to forks?


## Answer:

$\qquad$
3. What is the greatest 4-digit number that can be made with three different digits?

Answer: $\qquad$
4. What is $5-9$ ?

Answer: $\qquad$
5. Express $5 / 100$ as decimal.

Answer: $\qquad$
6. Calculate: $36 \times 25$

Answer: $\qquad$
7. True or False?

Every multiple of a number is greater than or equal to that number.

## Answer:

$\qquad$
8. What is the acute angle measured between the hands of the clock shown below?


Answer: $\qquad$ $\circ$

9-13. Complete the addition-subtraction box with the results:

14. What is the area of this regular shape?


Answer: $\qquad$ $\mathrm{cm}^{2}$
15. Write the expression for 9 subtracted from p

## Answer:

16. Find the product of the following, by rearranging the numbers:

$$
2 \times 1459 \times 50
$$

## Answer:

17. Round the following decimal to the nearest tenth: 17.097

Answer:
18. Write in digits: Two million, seven thousand and thirty four and 4 hundredths.

## Answer:

19. What is the perimeter of the parallelogram shown below:


Answer: $\qquad$
20. What is the capacity of this carton in litres?


Answer:
21. Which two of these numbers have the same place values for 6 ?

## Ring your answers.

$\begin{array}{llll}100.61 & 1764.16 & 621.9 & 1860.96\end{array}$
22. Look at the shape and fill in the blank spaces below:


It has $\qquad$ edges and $\qquad$ faces.
23. What is 44.8 divided by 70 ?

Answer: $\qquad$
24. In this map the distance is drawn to a scale of $1: 1,500,000$. What is the actual distance between points A and B on this map in km ?


## Answer:

$\qquad$ km
25. Kris was born on February $29^{\text {th }}$, 2000. How many of his actual birthdays have fallen on $29^{\text {th }}$ February (not counting his date of birth)?

## Answer:

$\qquad$
26. The difference of two mystery numbers is 1 and the sum of their squares is 25 . What is the product of the two mystery numbers?

## Answer:

$\qquad$
27. Look at the picture below. What is the original price of the bag before discount?


## Answer:

28. What is the surface area of this cube of side ' $a$ '?

a

## Answer:

$\qquad$
29. There are three consecutive odd numbers. The sum of the first two numbers is 5 more than the next number. What is the third odd number?

Answer:
30. Complete the series:

4
10
28
82
?

Answer:
31. What is the perimeter of this regular hexagon?


Answer: $\qquad$ cm
32. What percent of 20 is 30 ?

Answer: $\qquad$ \%
33. Old McDonald, the farmer, has built a house in a triangular corner plot of his farm. What area of the farm is still available for his animals to roam?


Answer: $\qquad$ $\mathrm{m}^{2}$
34. It is -7 degrees outside and the temperature decreases by 5 degrees. What is the new temperature?

Answer: $\qquad$ $\circ$
35. Jennifer is making fruit salad. She uses strawberries and blackberries in the ratio 3:9. Altogether, she uses 81 blackberries. Kim decides to make the same salad, using the same ratio, but with only 27 blackberries. How many strawberries do Jennifer and Kim use in total?

Answer: $\qquad$
36. A survey conducted by a library shows that 20 children liked to read classics. The rest of them liked to read adventure series or comics. How many children liked to read adventure series or comics?


## Answer:

37. Ben is stacking boxes of height 12 cm next to boxes of height 18 cm . What is the lowest height at which the two stacks will be the same height?

Answer: $\qquad$ cm
38. Express $3 / 8$ as a decimal.

## Answer:

39. Building A is 50 feet tall while building B is 20 metres high.

Which building is taller?

## Answer:

40. A town contains 5410 houses. Another town contains 16100 houses. How many houses in total are in the two towns? Choose the best estimate.
a. 1200
b. 11000
c. 15000
d. 21000
e. 410

## Answer:

$\qquad$
41. Henry started off his morning exercises for 5 minutes in January. He increased to 7 minutes in February, 11 minutes in March, 17 minutes in April, 25 minutes in May. If this pattern continues, for how many minutes does he exercise in the month of July?

## Answer:

42. John purchased a 4-night boat holiday in February 2013. His children opted for a 4-berth boat. What was the price, rounded to the nearest hundred pounds?

| Holidays <br> starting within <br> the following <br> periods | Boat <br> Size | $\mathbf{3}$ <br> Night <br> price | $\mathbf{4}$ <br> Night <br> price | $\mathbf{5}$ <br> Night <br> price | $\mathbf{6}$ <br> Night <br> price | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| From $01-10-$ <br> pright |  |  |  |  |  |  |
| To 312 <br> 2012 | 4 <br> Berth | $£ 454.50$ | $£ 524.50$ | $£ 594.50$ | $£ 664.50$ | $£ 699.00$ |
|  | 6 | $£ 519.50$ | $£ 599.25$ | $£ 679.50$ | $£ 759.50$ | $£ 799.00$ |


| From 01-11- <br> 2012 | 4 <br> Berth | $£ 351.00$ | $£ 405.00$ | $£ 459.00$ | $£ 513.00$ | $£ 540.00$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| To 19-12- <br> 2012 | 6 <br> Berth | $£ 468.00$ | $£ 540.00$ | $£ 612.00$ | $£ 684.00$ | $£ 720.00$ |


| From 20-12- <br> 2012 | 4 <br> Berth | $£ 519.50$ | $£ 599.50$ | $£ 679.50$ | $£ 759.00$ | $£ 799.00$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| To 31-12- <br> 2012 | 6 <br> Berth | $£ 584.50$ | $£ 674.50$ | $£ 764.50$ | $£ 854.00$ | $£ 899.00$ |


| From 01-01- <br> 2013 | 4 <br> Berth | $£ 354.50$ | $£ 408.50$ | $£ 463.50$ | $£ 517.50$ | $£ 545.00$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| To $28-03-$ <br> 2013 | 6 <br> Berth | $£ 451.50$ | $£ 521.50$ | $£ 590.50$ | $£ 660.50$ | $£ 695.00$ |

Answer: £ $\qquad$
43. What is the next term in the series?
6
3
1.5
0.75

## Answer:

$\qquad$
44. Karen boarded the 09:30 train from Cheerborough to Merry Village. How much earlier, in hours and minutes, would she have reached Merry Village if she had taken the $06: 30$ service instead?

| Train schedule |  |  |  |
| :--- | :--- | :--- | :--- |
| Smile Town | $02: 45$ | $05: 45$ | $16: 00$ |
| Happy Valley | $04: 00$ | $07: 00$ | $17: 15$ |
| Danceville | $05: 45$ | $08: 45$ | $19: 00$ |
| Cheerborough | $06: 30$ | $09: 30$ | $19: 45$ |
| Singwood | $07: 00$ | $10: 00$ | $20: 15$ |
| Joyton | $08: 30$ | $11: 30$ | $21: 45$ |
| Springville | $09: 15$ | $12: 15$ | $22: 30$ |
| Merry Village | $10: 30$ | $13: 45$ | $00: 00$ |

Answer: $\qquad$
45. Tom buys 3 identical pens and receives 53 p change from $£ 5.00$. How much did each pen cost?

Answer: £ $\qquad$
46. What is the value of angle ' $d$ ' in this figure?


Answer: $\qquad$ $\circ$
47. What shape can this net make?


Answer: $\qquad$
48. What is the probability that the spinner will land on a multiple of 2 ?


## Answer:

49. A corner shop recorded the number of customers who visited the shop each day for a week. What is the range?

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 102 | 94 | 58 | 67 | 134 | 112 | 89 |

Answer:
50. Harry is in an ice-cream shop that offers a scoop of strawberry, vanilla or chocolate flavour. He can choose from toffee, butterscotch or cherry sauce. He also has a choice of sprinkles or flakes on the top. Harry wants an icecream with sauce and a topping. How many different combinations can Harry choose from?

## Answer:

$\qquad$

