

FIRST NAME SURNAME

SCHOOL DATE



SMOOTH**MATHS**

11 PLUS EXAMINATION

MATHEMATICS

SAMPLE PAPER 1

Paper ID: SM-11MATH-A7

Please read the following before you begin

- Please attempt all questions.
- Keep all your work neatly within the answer spaces provided.
- Show all your working out clearly on the paper.
- Calculators are not allowed.

TOTAL MARKS: 100

TIME ALLOWED: 45 Minutes

STUDENT SCORE:/100



Sample paper produced independently by SmoothMaths, inspired by the question style and structure often seen in leading independent school and 11+ entrance exams.
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1) Add together 187, 76, and 358.

Answer:

2) Subtract 549 from 1921.

Answer:

3) Multiply 47 by 9.

Answer:

4) Divide 7680 by 16.

Answer:

5) Work out:

$$\frac{5}{6} + \frac{2}{9}$$

Answer:

6) Work out:

$$\frac{3}{4} - \frac{5}{8}$$

Answer:

7) Find 12% of 450.

Answer:

8) Work out: $4.89 + 9.27 + 3.164.89$

Answer:

9) A school has 40 classrooms, and each classroom has 18 desks. How many desks are there in total?

Answer:

10) A baker has 200 cookies and divides them equally among 15 children. How many cookies are left over?

Answer:

11) Zara bought a dress for £45.20 but later found the same dress on sale for £32.85. How much money did she save?

Answer:

12) Emily shares her chocolate bar with her friends. She gives one friend a third of the bar and another friend a quarter of the bar. What fraction of the bar is left for Emily?

Answer:

13) Ryan has 2,500 trading cards. He gives 820 cards to his friends. How many cards does he have left?

Answer:

14) There are 1000 milliliters in a liter. How many milliliters are there in 3.75 liters?

Answer:

15) The perimeter of a square garden is 36 meters. How long is each side?

Answer:

16) Write down the next two numbers in each sequence:

a) 12, 17, 22, 27, 32, 37

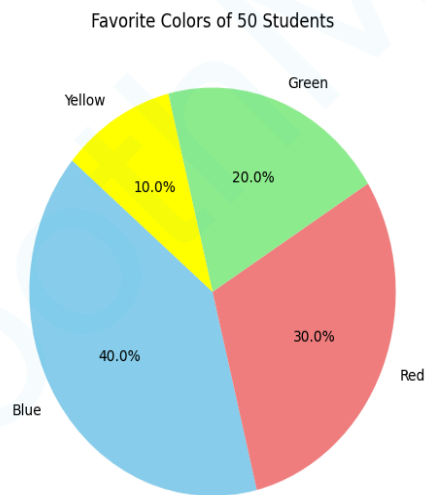
b) 200, 190, 180, 170, 160, 150

Answer:

17) I think of a number. When I multiply this number by 12 and then add 8, I get 92. What number am I thinking of?

Answer:

18) I asked 50 students what their favorite color was. The results are shown in this pie chart.



19) Write each list of numbers in order from smallest to largest:

a) 0.56, 5.6, 0.65, 6.05:

b) 7, -3, -14, 12, 9:

Answer:

20) Lisa bought 4 packs of pencils for £1.50 each and 3 erasers for £0.75 each. How much change did she get from £10?

Answer:

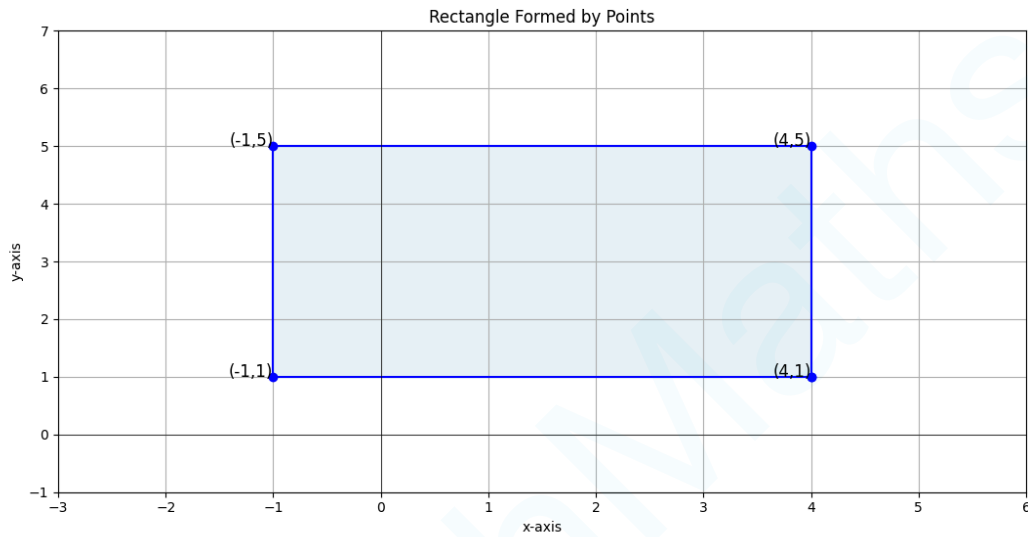
21) Alison, Bhavini, and Catherine share a bag of sweets. Alison gets 5 more sweets than Bhavini, and Catherine gets twice as many sweets as Alison. Catherine gets 22 sweets. How many sweets are in the bag?

Answer:

22) On the coordinate grid:

a) Plot the points $(4,1)$, $(4,5)$, $(-1,1)$, and $(-1,5)$ to form a rectangle.

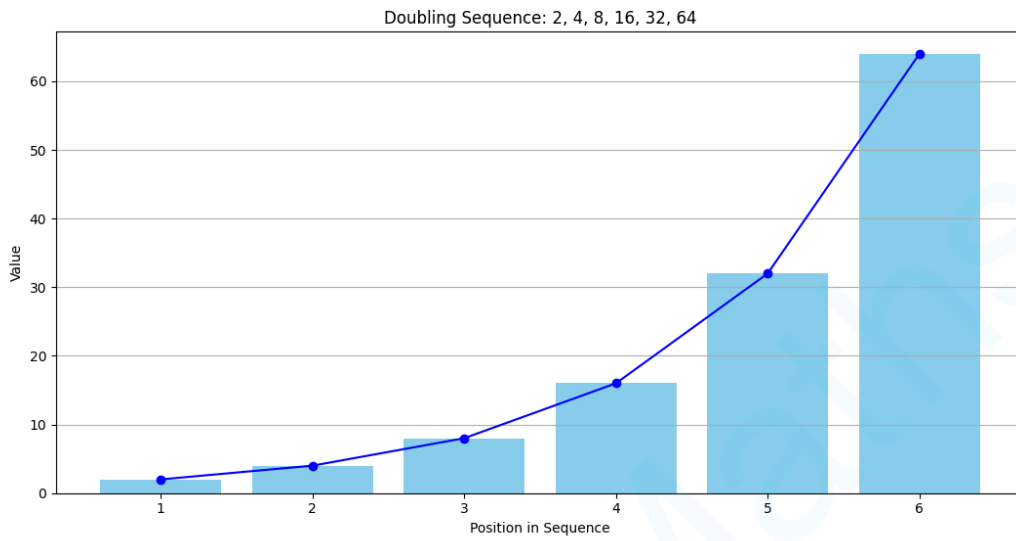
b) Calculate the area of the rectangle.



Answer:

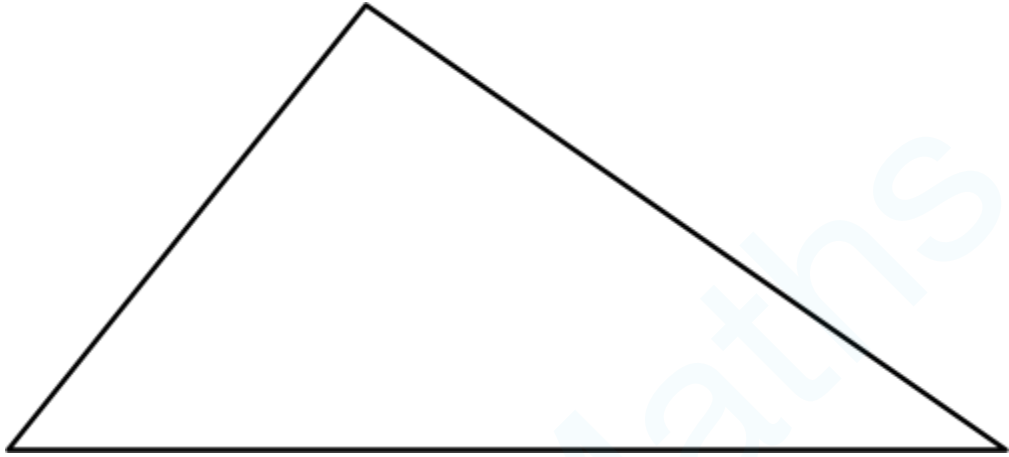
23) Fill in the missing numbers in the sequence and describe the pattern:

2,_,_,16,32,64



Answer:

24) In the diagram, find the size of angle k.



Answer:

25) Work out the missing values:

a) 11% of $3600 = ?$

b) $?\%$ of $52 = 13$

c) 15% of $? = 60$

Answer:

26) Using the cinema formula $3k + 8a = C$ $3k + 8a = C$ $3k + 8a = C$:

a) What is the cost of three adults and one child going to the cinema?

b) The Bryant family spends £25. Find the number of adults and children.

Answer:

27) Evaluate the following expressions:

a) $9 + 7 \times 8 - 3$

b) $(11 + 13) \times -20$

c) 2×132

d) $-13 - 27$

Answer:

28) Solve each equation:

a) $x + 80 = 15$

b) $6y - 20 = 46$

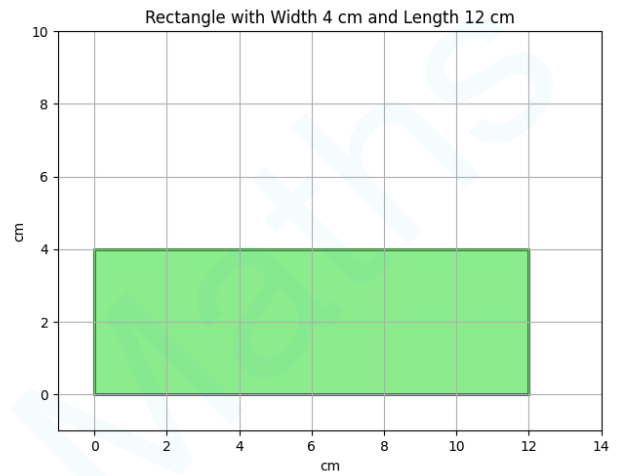
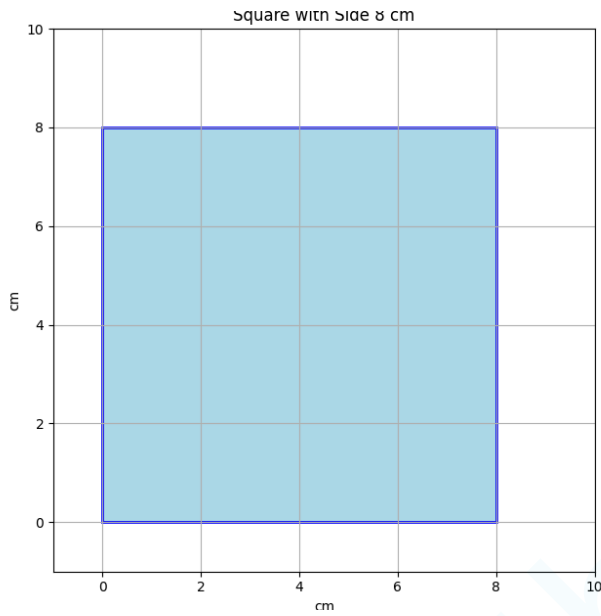
c) $10g + 400 = 645 - 15g$

Answer:

29):

a) A square with a perimeter of 32 cm.

b) A rectangle with a perimeter 32 cm, three times as long as it is wide.



Answer:

30) The floor of a room is 3 meters wide and 4 meters long. It will be tiled with tiles that are 25 cm wide and 50 cm long. How many tiles are needed?

Answer:

31) A coin with the numbers 3 and 7 is flipped, and a four-sided die (with numbers 1 to 4) is rolled. When the two numbers are added, how many times would you expect a total of 7 if this is repeated 50 times?

Answer:

32) A mobile app sells for 79 pence per download, and 150 people download it daily. The app creator earns 44 pence per download. How many weeks until the creator earns £2,000?

Answer: