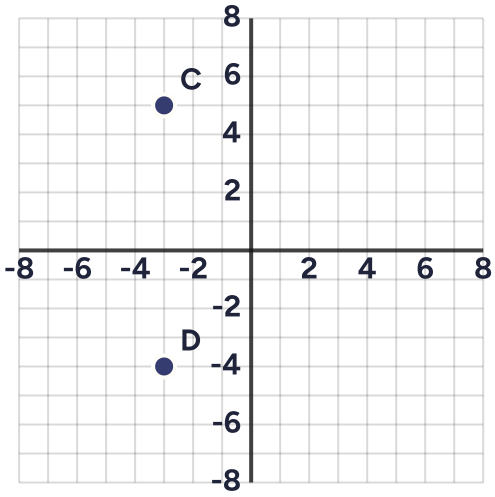
Name _____ Date _____ Mark _____ / 20

Time allowed: **25 minutes**. 20 questions, 1 mark each. Write your answer on the answer line. Show your working in the space. No calculator.

1. What is 1 000 more than 597 038?

Answer _____

2. Point C is at (−3, 5) and point D is at (−3, −4). How far apart are they, in squares?



Answer _____

3. A bag has 42 marbles. 65 of them are green. How many are not green?

Answer _____

4. Work out 41.5 ÷ 5.

Answer _____

5. Use the rule “perimeter = 2 × (length + width)”. Find the perimeter of a rectangle that is 8 cm long and 5 cm wide.

Answer _____ cm

6. A pencil costs 44p. A ruler costs 59p. You pay £2. How much change should you get? Give your answer in pence.

Answer _____ p

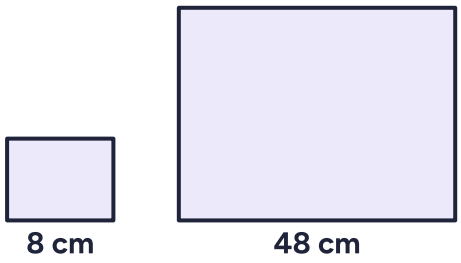
7. What is the difference between $-8\,^{\circ}\mathrm{C}$ and $12\,^{\circ}\mathrm{C}$?

Answer _____

8. Write 81 as a decimal.

Answer _____

9. A shape is enlarged. A side of 8 cm becomes 48 cm. What is the scale factor?

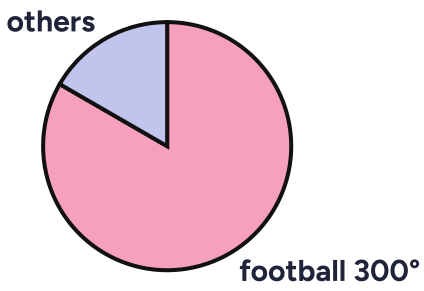


Answer _____

10. How many minutes are there in 2 hours and 30 minutes?

Answer _____ min

11. A pie chart shows 24 votes. The slice for football has an angle of 300°. How many votes did football get?

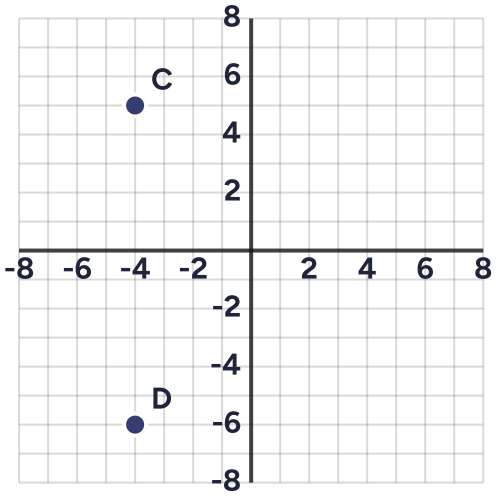


Answer _____

12. Write 200000 + 50000 + 5000 + 900 + 50 + 4 as one number, with no commas.

Answer _____

13. Point C is at (−4, 5) and point D is at (−4, −6). How far apart are they, in squares?

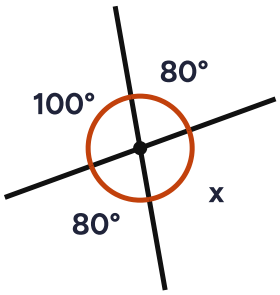


Answer _____

14. 64 − 63 = 6?. What is the missing top number?

Answer _____

15. Angles around a point are 80°, 100°, 80° and x°. Find x.



Answer _____ °

16. Work out 60% of 120.

Answer _____

17. Write 54 as a percentage. Type the number only.

Answer _____

18. Use the rule "perimeter = 2 × (length + width)". Find the perimeter of a rectangle that is 11 cm long and 4 cm wide.

Answer _____ cm

19. Count back in 5s: 6, 1, −4, … What is the 5th number in the sequence?

Answer _____

20. What is the smallest prime number that is bigger than 28?

Answer _____

End of paper

Answers

1. 598 038
2. 9
3. 7
4. 8.3
5. 26 cm
6. 97 p
7. 20
8. 0.125
9. 6
10. 150 min
11. 20
12. 255954
13. 11
14. 1
15. x = 100°
16. 72
17. 80
18. 30 cm
19. -14
20. 29

1 mark for each correct answer (20 marks). Accept equivalent forms, such as 0.5 for ½.

Mark scheme with the steps

1. Place value

What is 1 000 more than 597 038?

- 1,000 is one in the thousands column.
- 597 038 + 1000 = 598 038.

2. Coordinates in all four quadrants

Point C is at (−3, 5) and point D is at (−3, −4). How far apart are they, in squares?

- From 5 down to 0 is 5 squares.
- From 0 down to −4 is 4 squares.
- 5 + 4 = 9.

3. Fractions of amounts

A bag has 42 marbles. 65 of them are green. How many are not green?

- 61 of 42 is 7, so green is 5 × 7 = 35.
- Not green: 42 − 35 = 7.

4. Decimals

Work out 41.5 ÷ 5.

- 8.3 × 5 = 41.5, so the answer is 8.3.

5. Using a formula

Use the rule “perimeter = 2 × (length + width)”. Find the perimeter of a rectangle that is 8 cm long and 5 cm wide.

- Add 8 cm and 5 cm.
- Double 13 cm to count both pairs of sides.

---

6. Money and change

A pencil costs 44p. A ruler costs 59p. You pay £2. How much change should you get? Give your answer in pence.

- £2 is 200p.
- The two items cost 44p + 59p = 103p. Subtract that from 200p.

---

7. Negative numbers

What is the difference between $-8\,^\circ$C and $12\,^\circ$C?

- From −8 up to 0 is 8, then up to 12 is 12 more.
- 8 + 12 = 20.

---

8. Fractions, decimals and percentages

Write $\frac{1}{8}$ as a decimal.

- 1 ÷ 8 = 0.125.

---

9. Scale factors and maps

A shape is enlarged. A side of 8 cm becomes 48 cm. What is the scale factor?

- 48 ÷ 8 = 6.

---

10. Converting units of time

How many minutes are there in 2 hours and 30 minutes?

- 2 × 60 = 120 minutes.
- 120 + 30 = 150.

---

11. Interpreting pie charts

A pie chart shows 24 votes. The slice for football has an angle of 300°. How many votes did football get?

- Split the circle into 6 equal slices of 60° each. The football slice takes up 5 of them.
- Share the 24 votes equally between the 6 slices. That's 4 votes for each slice.
- Count 5 lots of 4: 5 × 4 = 20 votes.

---

12. Numbers to a million

Write 200000 + 50000 + 5000 + 900 + 50 + 4 as one number, with no commas.

- 200,000 + 50,000 + 5,000 + 900 + 50 + 4
- = 255,954.

---

13. Coordinates in all four quadrants

Point C is at (−4, 5) and point D is at (−4, −6). How far apart are they, in squares?

- From 5 down to 0 is 5 squares.
- From 0 down to −6 is 6 squares.
- 5 + 6 = 11.

---

14. Fractions with the same bottom number

64 − 63 = 6?. What is the missing top number?

- 4 − 3 = 1.
- So the answer is 61.

---

15. Angles

Angles around a point are 80°, 100°, 80° and x°. Find x.

- 80 + 100 + 80 = 260.
- 360 − 260 = 100.

---

16. Percentages of amounts

Work out 60% of 120.

- 10% means one tenth. Divide by ten: 120 ÷ 10 = 12.
- 60% is 6 lots of 10%: 6 × 12 = 72.

---

17. Fractions, decimals and percentages

Write 54 as a percentage. Type the number only.

- 54 = 10080.
- So it is 80%.

---

18. Using a formula

Use the rule “perimeter = 2 × (length + width)”. Find the perimeter of a rectangle that is 11 cm long and 4 cm wide.

- Add 11 cm and 4 cm.
- Double 15 cm to count both pairs of sides.

---

19. Counting through zero

Count back in 5s: 6, 1, −4, … What is the 5th number in the sequence?

- The 4th number is −4 − 5 = −9.
- The 5th number is −9 − 5 = −14.

---

20. Prime, square and cube numbers

What is the smallest prime number that is bigger than 28?

- Check the numbers after 28 one by one.
- 29 has only two factors, 1 and 29, so it is prime.
