

a

$3.9 \times 30 =$

c

$1 \frac{3}{4} + \frac{1}{2}$

Write your answer as a mixed number fraction.

e

Two of the angles in a triangle are 60° and 50° .

Logan says, 'The triangle must be isosceles.'

Explain why Logan is **not** correct.

b

Molly completes this calculation:

$\begin{array}{r} 85 \\ - 68 \\ \hline 17 \end{array}$
--

Write an **addition** calculation she could use to check her answer.

d

Jamie has £300. He spends 65% of the money on a new bike.

How much does Jamie spend on his new bike?

f

The numbers in this sequence **decrease** by the same amount each time.

204 718, 203 718, 202 718, 201 718, 200 718

What is the next number in the sequence?



a

A book has 316 pages. Ameena reads $\frac{1}{4}$ of the pages.

How many pages does Ameena have **left** to read?

b

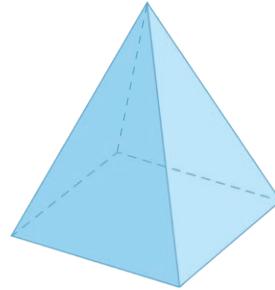
The temperature in the fridge is 6°C .

The temperature in the freezer is -22°C .

What is the **difference** between the two temperatures?

c

Here is a drawing of a 3D shape.



Identify the number of faces, vertices and edges which the shape has:

faces:

vertices:

edges:

What is the name of this 3D shape?

d

$$0.1 \div 100$$

e

Identify all the common factors of both 12 and 28.

f

There are 24 students in a class.

The teacher has 8 litres of blackcurrant squash.

They pour 275 millilitres of blackcurrant squash for each student.

How much squash is **left** over? Give your answer in litres.



a

$0.25, \frac{75}{100}, \frac{14}{100}, 0.5, \frac{3}{12}$

Which two numbers from the list are equivalent to $\frac{1}{4}$?

c

$\frac{1}{4} \div 2$

e

$8^2 - 45 \div 5$

b

Here are four number cards:

6	1	7	5
---	---	---	---

i. Ava uses each card once to make a four-digit number. She places:

- 5 in the hundreds column;
- 6 so that it has a lower value than any of the other digits;
- The remaining 2 digits so that 1 has the higher value.

What is Ava's number?

ii. Ava was given an extra card. When she multiplied the number on the card by 1576, the result was 15 760.

What number was on the card?

d

Elijah buys 4 large crates of oranges and 3 small crates of oranges.

Each large crate has 32 oranges and each small crate has 16 oranges.

Elijah would like to give 1 orange to each student in his year group.

If there are 180 students in his year group, does he have enough oranges so that every student receives 1 orange each?

f

Calculate 99% of 500



a

What number is 10 times greater than two hundred and ninety-seven?

c

$$2814 \times 45$$

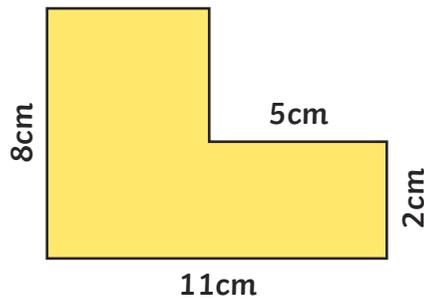
e

A child's heart beats an average of 80 times per minute.

How many times, on average, will it beat between 8.30am and 3.30pm on the same day?

b

Calculate the area and perimeter for the following shape. Don't forget the units in your answer.



d

$$64.25 + 24.5$$

f

I think of a number.

I add 42 then multiply by 3.

Finally, I halve it. The result is 75.

What number was I thinking of?



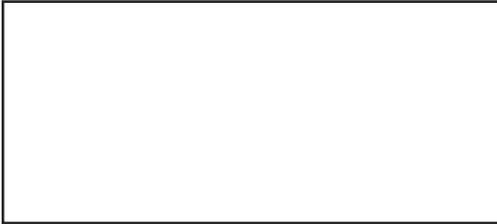
a

Round 82 275 to the nearest:

- 10
- 100
- 1000
- 10 000

c

Draw all the lines of symmetry on the diagram below.

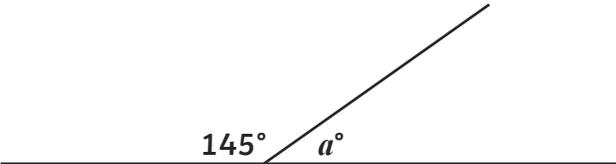


e

$6082 - 467.002$

b

Calculate the missing angle, a .



d

A farmer is packing eggs.
Each box holds six eggs.
The farmer has 860 eggs to pack.

- How many boxes can the farmer fill?
- How many eggs will be left over?

f

A bag contains 7 red beads, 4 blue beads, 5 orange beads and 2 pink beads.
If a bead is picked at random, what is the probability of getting:

- A red bead?
- A blue or pink bead?
- Not an orange bead?



a

Using $<$, $=$ or $>$, write the correct symbol in each box to make the statements correct.

$$11 \times 8 \quad \square \quad 6 \times 14$$

$$90 \div 30 \quad \square \quad 80 \div 40$$

$$30 \times 2 \quad \square \quad 15 \times 4$$

$$155 \div 5 \quad \square \quad 160 \div 4$$

b

Write these fractions in order, starting with the smallest.

$$\frac{7}{6} \quad \frac{4}{6} \quad \frac{6}{18}$$

c

Lily should have divided a number by 4, but instead she subtracted 4.

She got the answer 88.

What should her answer have been?

d

Write the following in order, starting with the smallest:

2.09, 2.9, 20.9, 2.19, 2.009

e

Write:

i. 420mm in cm

ii. 67cm in m

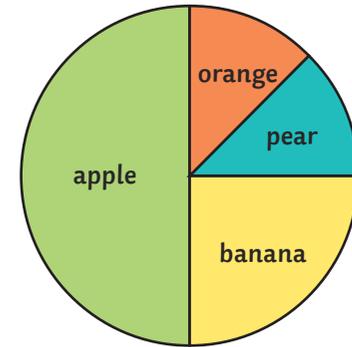
iii. 5.45kg in g

iv. 880ml in l

v. 312cm in mm

f

A teacher carried out a survey to find out students' favourite fruit. They drew a pie chart to show the results.



- i. If 6 students chose banana, how many students chose apple?
- ii. How many students, in total, were asked in the survey?



a

$$3.9 \times 30 = 117$$

c

$$1 \frac{3}{4} + \frac{1}{2}$$

Write your answer as a mixed number fraction.

$$\frac{7}{4} + \frac{1}{2} = \frac{7}{4} + \frac{2}{4}$$

$$\frac{7}{4} + \frac{2}{4} = \frac{9}{4}$$

$$= 2 \frac{1}{4}$$

e

Two of the angles in a triangle are 60° and 50°.

Logan says, 'The triangle must be isosceles.'

Explain why Logan is **not** correct.

An isosceles triangle must have two equal angles. If two of the angles are 60 and 50, then the missing angle is 70. Therefore, none of the angles are equal and it is a scalene triangle, not isosceles.

b

Molly completes this calculation:

$\begin{array}{r} 85 \\ - 68 \\ \hline 17 \end{array}$
--

Write an **addition** calculation she could use to check her answer.

$$68 + 17 = 85$$

d

Jamie has £300. He spends 65% of the money on a new bike.

How much does Jamie spend on his new bike?

10% = £30

60% = £180

5% = £15

180 + 15 = £195

f

The numbers in this sequence **decrease** by the same amount each time.

204 718, 203 718, 202 718, 201 718, 200 718

What is the next number in the sequence?

199 718



a

A book has 316 pages. Ameena reads $\frac{1}{4}$ of the pages.

How many pages does Ameena have left to read?

Ameena has $\frac{3}{4}$ of the book left to read.

$$316 \div 4 = 79$$

$$79 \times 3 = 237 \text{ pages left to read}$$

b

The temperature in the fridge is 6°C .

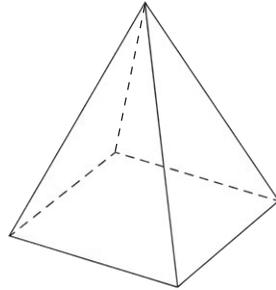
The temperature in the freezer is -22°C .

What is the **difference** between the two temperatures?

$$28^{\circ}\text{C}$$

c

Here is a drawing of a 3D shape.



Identify the number of faces, vertices and edges which the shape has:

faces: **5**

vertices: **5**

edges: **8**

What is the name of this 3D shape?

Square-based pyramid

d

$$0.1 \div 100$$

$$0.001$$

e

Identify all the common factors of both 12 and 28.

1, 2, 4

f

There are 24 students in a class.

The teacher has 8 litres of blackcurrant squash.

They pour 275 millilitres of blackcurrant squash for each student.

How much squash is **left** over? Give your answer in litres.

$275 \times 24 = 6600$ millilitres of squash poured

$8000 - 6600 = 1400$ millilitres left

1.4 litres



a

0.25, $\frac{75}{100}$, $\frac{14}{100}$, 0.5, $\frac{3}{12}$

Which two numbers from the list are equivalent to $\frac{1}{4}$?

0.25 and $\frac{3}{12}$

c

$\frac{1}{4} \div 2$

$\frac{1}{4} \div \frac{2}{1}$

$\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

e

$8^2 - 45 \div 5$

$45 \div 5 = 9$

$64 - 9 = 55$

b

Here are four number cards:

6	1	7	5
---	---	---	---

i. Ava uses each card once to make a four-digit number. She places:

- 5 in the hundreds column;
- 6 so that it has a lower value than any of the other digits;
- The remaining 2 digits so that 1 has the higher value.

What is Ava's number? **1576**

ii. Ava was given an extra card. When she multiplied the number on the card by 1576, the result was 15 760.

What number was on the card? **10**

d

Elijah buys 4 large crates of oranges and 3 small crates of oranges.

Each large crate has 32 oranges and each small crate has 16 oranges.

Elijah would like to give 1 orange to each student in his year group.

If there are 180 students in his year group, does he have enough oranges so that every student receives 1 orange each?

$4 \times 32 = 128$

$3 \times 16 = 48$

$128 + 48 = 176$

Elijah does not have enough oranges.

f

Calculate 99% of 500

10% = 50

90% = 450

1% = 5

9% = 45

450 + 45 = 495



a

What number is 10 times greater than two hundred and ninety-seven?

$297 \times 10 = 2970$

c

2814×45

126 630

e

A child's heart beats an average of 80 times per minute.

How many times, on average, will it beat between 8.30am and 3.30pm on the same day?

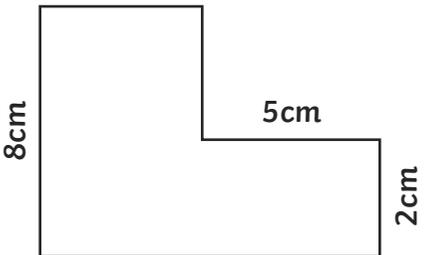
8.30am to 3.30pm = 7 hours

$7 \times 60 = 420$ minutes

$420 \times 80 = 33\ 600$ beats

b

Calculate the area and perimeter for the following shape. Don't forget the units in your answer.



Area: $5 \times 2 + 8 \times 6 = 58\text{cm}^2$
or $11 \times 2 + 6 \times 6 = 58\text{cm}^2$

Perimeter: $8 + 11 + 2 + 5 + 6 + 6 = 38\text{cm}$

d

$64.25 + 24.5$

88.75

f

I think of a number.

I add 42 then multiply by 3.

Finally, I halve it. The result is 75.

What number was I thinking of?

$75 \times 2 = 150$

$150 \div 3 = 50$

$50 - 42 = 8$



a

Round 82 275 to the nearest:

i. 10 **82 280**

ii. 100 **82 300**

iii. 1000 **82 000**

iv. 10 000 **80 000**

c

Draw all the lines of symmetry on the diagram below.

e

$6082 - 467.002$

5614.998

b

Calculate the missing angle, a .

$180 - 145 = 35^\circ$

d

A farmer is packing eggs.
Each box holds six eggs.
The farmer has 860 eggs to pack.

i. How many boxes can the farmer fill?
143 boxes

ii. How many eggs will be left over?
 $143 \times 6 = 858$
 $860 - 858 = 2$ eggs

f

A bag contains 7 red beads, 4 blue beads, 5 orange beads and 2 pink beads.
If a bead is picked at random, what is the probability of getting:

i. A red bead? $\frac{7}{18}$

ii. A blue or pink bead? $\frac{6}{18}$ or $\frac{1}{3}$

iii. Not an orange bead? $\frac{13}{18}$



a

Using $<$, $=$ or $>$, write the correct symbol in each box to make the statements correct.

$$11 \times 8 \quad \boxed{>} \quad 6 \times 14$$

$$90 \div 30 \quad \boxed{>} \quad 80 \div 40$$

$$30 \times 2 \quad \boxed{=} \quad 15 \times 4$$

$$155 \div 5 \quad \boxed{<} \quad 160 \div 4$$

b

Write these fractions in order, starting with the smallest.

$$\frac{7}{6} \quad \frac{4}{6} \quad \frac{6}{18}$$

$$\frac{6}{18} \quad \frac{4}{6} \quad \frac{7}{6}$$

c

Lily should have divided a number by 4, but instead she subtracted 4.

She got the answer 88.

What should her answer have been?

$$88 + 4 = 92$$

$$92 \div 4 = 23$$

d

Write the following in order, starting with the smallest:

2.09, 2.9, 20.9, 2.19, 2.009

2.009, 2.09, 2.19, 2.9, 20.9

e

Write:

i. 420mm in cm **42cm**

ii. 67cm in m **0.67m**

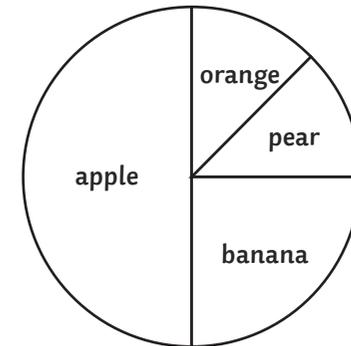
iii. 5.45kg in g **5450g**

iv. 880ml in l **0.88l**

v. 312cm in mm **3120mm**

f

A teacher carried out a survey to find out students' favourite fruit. They drew a pie chart to show the results.



- i. If 6 students chose banana, how many students chose apple? **12**
- ii. How many students, in total, were asked in the survey? **24**

