

Place value and negative numbers

Compare and round numbers; calculate across zero.

Name: _____ Date: _____

1. Write 6,042,309 in words.

2. What is the value of 7 in 8,735,012?

3. Round 4,678,950 to the nearest million.

4. Round 9,245,801 to the nearest 100,000.

5. Find the difference between -7 and 5.

6. Order from smallest to largest: -12; 3; -4; 0.

7. The temperature falls from 6 °C to -5 °C. How far does it fall?

8. Write the number that is 100,000 less than 3,005,000.

Answers: Place value and negative numbers

Try the questions first. Use these notes to check your thinking.

1. **Six million, forty-two thousand, three hundred and nine.**

Read the millions, thousands and units groups.

2. **700,000**

The 7 is in the hundred-thousands column.

3. **5,000,000**

The hundred-thousands digit is 6, so round up.

4. **9,200,000**

The ten-thousands digit is 4, so round down.

5. **12**

Seven steps to zero, then five more.

6. **-12; -4; 0; 3**

Negative numbers are below zero.

7. **11 °C**

Six degrees to zero and five more below it.

8. **2,905,000**

Subtract 100,000, exchanging across the millions boundary.

Original Trace Learn questions. Curriculum scope: maths programmes of study, Department for Education.
tracelearn.app/worksheets/year-6-place-value/

Find what to practise next: [try the free diagnostic at tracelearn.app/free-diagnostic](https://tracelearn.app/free-diagnostic)

Written methods and order of operations

Calculate with larger numbers and choose operation order.

Name: _____ Date: _____

1. Calculate $4,307 \times 26$.

2. Calculate 7,392 divided by 24.

3. Calculate $5,000 - 2,768$.

4. Calculate $18 + 6 \times 4$.

5. Calculate $(18 + 6) \times 4$.

6. Find the highest common factor of 18 and 30.

7. Find the lowest common multiple of 9 and 12.

8. A school has 287 pupils. Each minibus holds 16 pupils. How many minibuses are needed?

Answers: Written methods and order of operations

Try the questions first. Use these notes to check your thinking.

1. **111,982**

$4,307 \times 20 = 86,140$ and $\times 6 = 25,842$.

2. **308**

$24 \times 300 = 7,200$ and $24 \times 8 = 192$.

3. **2,232**

Check by adding 2,768 and 2,232.

4. **42**

Multiply first: $6 \times 4 = 24$, then add 18.

5. **96**

Do the brackets first: 24×4 .

6. **6**

6 is the largest factor both numbers share.

7. **36**

9×4 and 12×3 both equal 36.

8. **18**

17 minibuses hold 272 pupils; the remaining 15 need another.

Original Trace Learn questions. Curriculum scope: maths programmes of study, Department for Education.
tracelearn.app/worksheets/year-6-calculations/

Find what to practise next: [try the free diagnostic at tracelearn.app/free-diagnostic](https://tracelearn.app/free-diagnostic)

Fraction calculations

Simplify, multiply and divide fractions.

Name: _____ Date: _____

1. Simplify $18/24$.

2. Calculate $3/4 + 2/3$.

3. Calculate $5/6 - 1/4$.

4. Calculate $2/3 \times 3/5$.

5. Calculate $3/4$ divided by 3.

6. Find $5/8$ of 64.

7. Which is larger: $7/12$ or $3/5$?

8. A bottle holds $1 \frac{1}{2}$ litres. You pour out $2/5$ litre. How much is left?

Answers: Fraction calculations

Try the questions first. Use these notes to check your thinking.

1. **$\frac{3}{4}$**

Divide the numerator and denominator by 6.

2. **$\frac{17}{12}$ or $1\frac{5}{12}$**

Use twelfths: $\frac{9}{12} + \frac{8}{12}$.

3. **$\frac{7}{12}$**

$\frac{10}{12} - \frac{3}{12} = \frac{7}{12}$.

4. **$\frac{2}{5}$**

$\frac{6}{15}$ simplifies to $\frac{2}{5}$.

5. **$\frac{1}{4}$**

Share three quarters into three equal groups.

6. **40**

64 divided by 8 = 8; $8 \times 5 = 40$.

7. **$\frac{3}{5}$**

Compare $\frac{35}{60}$ and $\frac{36}{60}$.

8. **$1\frac{1}{10}$ litres**

$\frac{15}{10} - \frac{4}{10} = \frac{11}{10}$.

Original Trace Learn questions. Curriculum scope: maths programmes of study, Department for Education.
tracelearn.app/worksheets/year-6-fractions/

Find what to practise next: [try the free diagnostic at tracelearn.app/free-diagnostic](https://tracelearn.app/free-diagnostic)

Decimals, percentages and money

Calculate with decimals and use percentage equivalents.

Name: _____ Date: _____

1. Calculate $3.75 + 0.86$.

2. Calculate $6.2 - 1.875$.

3. Calculate 0.48×7 .

4. Calculate 8.4 divided by 6.

5. Find 15% of 240.

6. A coat costs 60 pounds. The price drops by 20%. What is the new price?

7. Write $\frac{3}{8}$ as a decimal and percentage.

8. Round 7.486 to two decimal places.

Answers: Decimals, percentages and money

Try the questions first. Use these notes to check your thinking.

1. **4.61**

Line up the decimal points.

2. **4.325**

Write 6.200 before subtracting.

3. **3.36**

48 hundredths $\times 7 = 336$ hundredths.

4. **1.4**

84 tenths divided by 6 = 14 tenths.

5. **36**

10% is 24 and 5% is 12.

6. **48 pounds**

20% of 60 is 12; subtract 12.

7. **0.375 and 37.5%**

3 divided by 8 is 0.375; multiply by 100 for per cent.

8. **7.49**

The third decimal digit is 6, so increase the hundredths digit.

Original Trace Learn questions. Curriculum scope: maths programmes of study, Department for Education.
[tracelearn.app/worksheets/year-6-decimals/](https://www.tracelearn.app/worksheets/year-6-decimals/)

Find what to practise next: [try the free diagnostic at tracelearn.app/free-diagnostic](https://www.tracelearn.app/free-diagnostic)

Ratio and simple algebra

Use ratio, missing values and number sequences.

Name: _____ Date: _____

1. Red and blue beads are in the ratio 2:3. There are 25 beads. How many are red?

2. A recipe uses 300 g flour for 4 people. How much flour is needed for 6 people?

3. Find n : $4n + 7 = 31$.

4. A sequence increases by the same amount each time. It starts 5, 9, 13, 17. Write the next two numbers.

5. A rectangle has width w cm and length 9 cm. Write a rule for its perimeter P cm.

6. Find the missing number: $\frac{\quad}{15} = \frac{2}{3}$.

7. A map uses 1 cm for 2 km. Two places are 3.5 cm apart on the map. What is the real distance?

8. Find two whole numbers greater than zero whose sum is 11 and product is 30.

Answers: Ratio and simple algebra

Try the questions first. Use these notes to check your thinking.

1. **10**

Five equal parts; each part has 5 beads; red uses 2 parts.

2. **450 g**

75 g per person x 6.

3. **$n = 6$**

Subtract 7, then divide by 4.

4. **21, 25**

Add 4 each time.

5. **$P = 2w + 18$**

Two widths plus two lengths.

6. **10**

Multiply the numerator and denominator of $\frac{2}{3}$ by 5.

7. **7 km**

$3.5 \times 2 = 7$.

8. **5 and 6**

$5 + 6 = 11$ and $5 \times 6 = 30$.

Original Trace Learn questions. Curriculum scope: maths programmes of study, Department for Education.
tracelearn.app/worksheets/year-6-ratio-algebra/

Find what to practise next: try the free diagnostic at tracelearn.app/free-diagnostic

Area, volume, coordinates and averages

Find measures and use coordinates and the mean.

Name: _____ Date: _____

1. A triangle has base 10 cm and perpendicular height 6 cm. Find its area.

2. A parallelogram has base 7 cm and perpendicular height 4 cm. Find its area.

3. A cuboid measures 5 cm by 3 cm by 4 cm. Find its volume.

4. Reflect the point (3, -2) in the y-axis (the vertical axis).

5. Move (-4, 1) three units right and two units down. Give the new coordinates.

6. Find the mean of 4, 7, 8 and 9.

7. Two angles of a triangle are 48 degrees and 67 degrees. Find the third angle.

8. Four children collect 6, 8, 10 and 12 shells. A fifth child joins. The new mean is 9. How many shells has the fifth child?

Answers: Area, volume, coordinates and averages

Try the questions first. Use these notes to check your thinking.

1. 30 square centimetres

Half of 10×6 .

2. 28 square centimetres

$7 \times 4 = 28$.

3. 60 cubic centimetres

$5 \times 3 \times 4 = 60$.

4. (-3, -2)

The horizontal coordinate changes sign.

5. (-1, -1)

Add 3 to the first coordinate and subtract 2 from the second.

6. 7

The total is 28; divide by 4.

7. 65 degrees

$180 - 48 - 67 = 65$.

8. 9

Five lots of 9 total 45; the first four have 36; $45 - 36 = 9$.

Original Trace Learn questions. Curriculum scope: maths programmes of study, Department for Education.
tracelearn.app/worksheets/year-6-geometry/

Find what to practise next: [try the free diagnostic at tracelearn.app/free-diagnostic](https://tracelearn.app/free-diagnostic)