

11+ Maths: Topic Worksheet Pack

Seven original one-page worksheets, one per maths topic, with a combined answer page. Print the topic your child needs.

Use this as topic practice. Each sheet has six multiple-choice questions. Start without a timer and ask your child to show their working. If a later timed attempt is useful, write down the time taken. These sheets are not replicas of a local 11+ paper.

Test timing, equipment and answer sheets vary by area. Check your test administrator's current familiarisation materials before practising exam conditions.

Choose one topic. Use a recent mock or schoolwork to find a skill worth revisiting. Record how many questions were attempted and how many were missed, then look at the working. A small number of errors may still reveal a method that needs attention.

Talk through wrong answers. Ask your child how they reached the chosen option. A wrong option can suggest a missed step, but the choice alone does not prove which step went wrong. Practise the method that the working shows is difficult.

Original questions by Smart Cub Learning. Guide: smartcublearning.com/blog/11-plus-maths-worksheets-by-topic

Number, place value and the four operations

Name: Date: Time: _____ Score: / 6

1. A crate holds 384 apples. 96 are bruised and 57 are sold. How many apples are left in the crate?
A 231 B 288 C 153 D 327 E 441
2. Which of these is NOT equal to 6,040?
A $6,000 + 40$ B 604 tens C 60 hundreds + 4 tens D $6,400 - 360$ E 64 hundreds + 4 tens
3. What is 24×35 ?
A 720 B 840 C 830 D 940 E 860
4. A number is rounded to the nearest hundred and becomes 4,700. Which of these could NOT be the number?
A 4,651 B 4,749 C 4,700 D 4,712 E 4,752
5. Work out $1,000 - 348 - 291$.
A 652 B 361 C 709 D 371 E 639
6. The temperature is -6 degrees at midnight and rises 11 degrees by noon. What is the temperature at noon?
A 5 B -5 C 17 D -17 E 6

Rough working

Fractions and decimals

Name: Date: Time: _____ Score: / 6

1. Which of these is NOT equal to $\frac{3}{8}$?

A $\frac{6}{16}$ B $\frac{9}{24}$ C $\frac{12}{32}$ D $\frac{15}{45}$ E $\frac{30}{80}$

2. What is $\frac{2}{5}$ of 45?

A 9 B 15 C 18 D 22 E 27

3. Put in order, smallest first: 0.7, $\frac{3}{4}$, 0.68, $\frac{13}{20}$.

A $\frac{13}{20}$, 0.68, 0.7, $\frac{3}{4}$ B 0.68, $\frac{13}{20}$, 0.7, $\frac{3}{4}$ C $\frac{3}{4}$, 0.7, 0.68, $\frac{13}{20}$ D 0.7, 0.68, $\frac{13}{20}$, $\frac{3}{4}$ E $\frac{13}{20}$, 0.7, 0.68, $\frac{3}{4}$

4. A jug holds 1.2 litres. 350 ml is poured out. How much is left?

A 0.85 l B 1.17 l C 0.95 l D 8.5 l E 0.75 l

5. Work out $\frac{3}{4} - \frac{1}{6}$.

A $\frac{2}{2}$ B $\frac{7}{12}$ C $\frac{1}{2}$ D $\frac{5}{12}$ E $\frac{2}{10}$

6. Sam eats $\frac{1}{3}$ of a cake, then Ella eats $\frac{1}{4}$ of the whole cake. What fraction of the cake is left?

A $\frac{5}{12}$ B $\frac{2}{3}$ C $\frac{1}{12}$ D $\frac{2}{7}$ E $\frac{1}{2}$

Rough working

Percentages

Name: Date: Time: _____ Score: / 6

1. What is 15% of 240?
A 24 B 12 C 36 D 30 E 48
2. A coat costs 80 pounds and is reduced by 25%. What is the new price?
A 20 pounds B 55 pounds C 60 pounds D 65 pounds E 75 pounds
3. Which of these is NOT equal to 40%?
A $\frac{2}{5}$ B 0.4 C $\frac{20}{50}$ D $\frac{4}{25}$ E $\frac{12}{30}$
4. In a class of 30, 18 children walk to school. What percentage walk?
A 18% B 40% C 60% D 55% E 66%
5. A book club has 250 members. 12% leave. How many members remain?
A 30 B 238 C 220 D 210 E 200
6. A phone bill of 60 pounds rises by 5%, then falls by 10 pounds. What is the final bill?
A 53 pounds B 63 pounds C 50 pounds D 57 pounds E 55 pounds

Rough working

Ratio and proportion

Name: Date: Time: _____ Score: / 6

1. Red and blue counters are in the ratio 3:5. There are 40 counters altogether. How many are blue?
A 8 B 15 C 24 D 25 E 5
2. A recipe for 6 people uses 450 g of flour. How much flour is needed for 8 people?
A 600 g B 550 g C 75 g D 650 g E 500 g
3. Four pens cost 2.60 pounds. How much do seven pens cost?
A 4.55 pounds B 0.65 pounds C 4.20 pounds D 5.20 pounds E 3.90 pounds
4. Money is shared between Ana and Ben in the ratio 2:7. Ben gets 42 pounds more than Ana. How much does Ana get?
A 12 pounds B 8.40 pounds C 16.80 pounds D 14 pounds E 54 pounds
5. Three taps fill a tank in 40 minutes. How long would five taps of the same kind take?
A 24 minutes B 66 minutes C 120 minutes D 8 minutes E 15 minutes
6. A map uses a scale of 1 cm to 4 km. Two towns are 22 km apart. How far apart are they on the map?
A 88 cm B 5.5 cm C 4.5 cm D 11 cm E 18 cm

Rough working

Measures, area and volume

Name: Date: Time: _____ Score: / 6

1. A rectangular floor is 5 m by 4 m. A square rug of side 2 m sits on it. How much floor is NOT covered?
A 4 sq m B 20 sq m C 16 sq m D 18 sq m E 24 sq m
2. A film starts at 18:45 and lasts 1 hour 50 minutes. When does it end?
A 20:35 B 19:35 C 20:95 D 20:25 E 21:35
3. A box measures 6 cm by 5 cm by 4 cm. What is its volume?
A 15 cu cm B 60 cu cm C 120 cu cm D 148 cu cm E 30 cu cm
4. Which of these is NOT the same as 2.5 kg?
A 2,500 g B 2 kg 500 g C 25,000 g D 0.0025 tonnes E 2,000 g + 500 g
5. A garden path is a rectangle 12 m long and 1.5 m wide. What is its perimeter?
A 18 m B 13.5 m C 27 m D 24 m E 30 m
6. Paint covers 15 sq m per tin. A wall 6 m by 3 m has a window 2 m by 1 m. How many whole tins are needed?
A 1 B 2 C 3 D 4 E 5

Rough working

Shape and space

Name: Date: Time: _____ Score: / 6

1. Two angles on a straight line are 47 degrees and x . What is x ?
A 43 degrees B 133 degrees C 313 degrees D 143 degrees E 53 degrees
2. A triangle has angles of 38 degrees and 71 degrees. What is the third angle?
A 109 degrees B 71 degrees C 61 degrees D 251 degrees E 33 degrees
3. Which of these does NOT have exactly two pairs of parallel sides?
A square B rhombus C parallelogram D trapezium E rectangle
4. How many faces does a triangular prism have?
A 3 B 4 C 5 D 6 E 9
5. A point at (2, 3) is reflected in the vertical line $x = 5$. Where does it land?
A (8, 3) B (7, 3) C (2, 7) D (5, 3) E (3, 2)
6. A shape is turned a quarter turn clockwise, then a half turn. What single turn has the same effect?
A quarter turn clockwise B half turn C quarter turn anticlockwise D no turn E three quarter turns anticlockwise

Rough working

Data handling

Name: Date: Time: _____ Score: / 6

Questions 1 to 4 use this table of after-school clubs chosen by 60 children: Football 18, Choir 14, Chess 9, Art 12, Drama 7.

1. How many children did NOT choose Football?
A 18 B 42 C 46 D 33 E 24
2. How many more children chose Choir than Drama?
A 21 B 5 C 7 D 2 E 9
3. What percentage of the children chose Art?
A 12% B 25% C 20% D 15% E 30%
4. Which two clubs together were chosen by exactly 19 children?
A Chess and Art B Choir and Drama C Chess and Drama D Art and Drama E Choir and Chess
5. Five scores are 8, 5, 9, 5 and 13. What is the mean?
A 5 B 8 C 9 D 40 E 7
6. For the same five scores, what is the range?
A 5 B 13 C 8 D 4 E 9

Rough working

Answer key and discussion prompts

1. Number and place value

1 A (231): subtract 96, then 57. 2 E (6,440). 3 B (840). 4 E (4,752 rounds to 4,800). 5 B (361). 6 A (5 degrees).

2. Fractions and decimals

1 D ($15/45$ is $1/3$). 2 C (18). 3 A ($13/20$ is 0.65). 4 A (0.85 l). 5 B ($7/12$). 6 A ($5/12$).

3. Percentages

1 C (36). 2 C (60 pounds). 3 D ($4/25$ is 16%). 4 C (60%). 5 C (220). 6 A (53 pounds).

4. Ratio and proportion

1 D (25). 2 A (600 g). 3 A (4.55 pounds). 4 C (16.80 pounds): the 42-pound difference is five shares; Ana has two shares. 5 A (24 minutes). 6 B (5.5 cm).

5. Measures, area and volume

1 C (16 square metres): subtract the rug from the floor. 2 A (20:35). 3 C (120 cubic centimetres). 4 C (25,000 g). 5 C (27 m). 6 B (2 tins): the wall area after the window is 16 square metres.

6. Shape and space

1 B (133 degrees). 2 B (71 degrees). 3 D (trapezium). 4 C (5). 5 A (8, 3). 6 C (quarter turn anticlockwise).

7. Data handling

1 B (42). 2 C (7). 3 C (20%). 4 D (Art and Drama, 19). 5 B (8). 6 C (8).

Ask before reteaching: “Where did you start?”, “Which step was tricky?” and “Can you check it another way?” Look at the written method before deciding what a wrong option means. If the child guessed, use an untimed question to find the method they need to practise.

Original questions, free to print for family use. [smartcublearning.com](https://www.smartcublearning.com)