

FREE GRADE CHECK

GCSE Maths Grade Check

PAPER

48 MARKS

What grade is my child working at? · About 1 hour · Section A without a calculator

A short check paper that starts easy and gets harder, from about grade 1 up to grade 9. It shows roughly where your child is working now, and which topics to work on next.

Instructions for Your Child

- Answer as many questions as you can. It is fine to leave out any question you cannot do. Nobody is expected to get everything right.
- Section A: **no calculator**. Section B: you may use a calculator.
- Show your working. Marks are given for good working, even if the answer is wrong.
- Take about an hour in total. If you reach questions you have not learnt yet, skip them and go on to Section B, which starts easy again.

For Parents

When your child has finished, mark the paper using the free Answers for Parents, from mathswithibrahim.co.uk/maths-grade-check.html. You don't need to know the maths: every answer is written out for you.

Name

Date

Year group

Section A · No Calculator

24 marks

A1 Work out $3 \times 4 + 6 \div 2$ (1 mark)

Answer _____

A2 Write 0.35 as a fraction in its simplest form. (1 mark)

Answer _____

A3Work out $\frac{2}{3} + \frac{1}{4}$

(2 marks)

Answer _____

A4

Share £45 in the ratio 2 : 7

(2 marks)

Answer _____

A5Solve $5x - 7 = 18$

(2 marks)

Answer _____

A6Expand and simplify $3(x + 4) - 2(x - 1)$

(2 marks)

Answer _____

A7

Write 360 as a product of its prime factors.

(2 marks)

Answer _____

A8Factorise $x^2 + 2x - 15$

(2 marks)

Answer _____

A9 Work out $(6 \times 10^4) \times (3 \times 10^{-2})$. Give your answer in standard form. (2 marks)

Answer _____

A10 Work out the value of $16^{-3/2}$ (2 marks)

Answer _____

A11 Expand and simplify $(x + 3)(2x - 1)(x - 4)$ (3 marks)

Answer _____

A12 Rationalise the denominator and simplify fully $\frac{2 + \sqrt{3}}{2 - \sqrt{3}}$ (3 marks)

Answer _____

Section B · Calculator Allowed**24 marks**

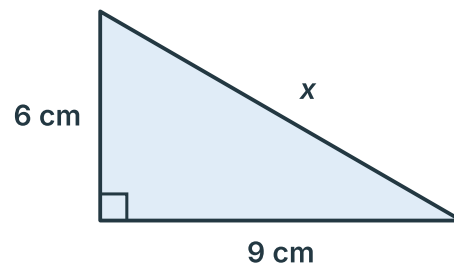
- B1** A coat costs £80. In a sale, the price is reduced by 15%. Work out the sale price. (2 marks)

Answer _____

- B2** A car travels 150 miles in 2 hours 30 minutes. Work out its average speed in miles per hour. (2 marks)

Answer _____

- B3** The diagram shows a right-angled triangle. Work out the length x . Give your answer to 1 decimal place. (2 marks)



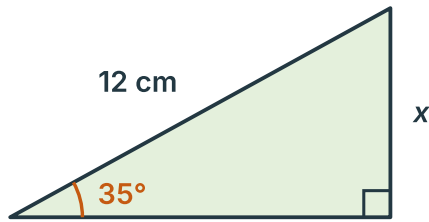
Not drawn accurately

Answer _____

- B4** A circle has a radius of 7 cm. Work out its area. Give your answer to 1 decimal place. (2 marks)

Answer _____

- B5** The diagram shows a right-angled triangle. Work out the length x . Give your answer to 3 significant figures. (2 marks)



Not drawn accurately

Answer _____

- B6** After a 20% increase, the price of a bike is £96. What was the price before the increase? (2 marks)

Answer _____

- B7** Solve the simultaneous equations $3x + 2y = 16$ and $x - y = 2$ (3 marks)

Answer _____

- B8** Solve $2x^2 - 5x - 4 = 0$. Give your answers to 2 decimal places. (3 marks)

Answer _____

B9

y is inversely proportional to x^2 . When $x = 2$, $y = 15$. Work out the value of y when $x = 5$.

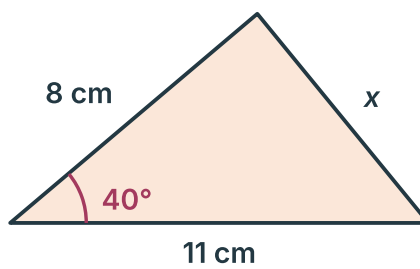
(3 marks)

Answer _____

B10

The diagram shows a triangle. Work out the length x . Give your answer to 3 significant figures.

(3 marks)



Not drawn accurately

Answer _____

Well Done for Finishing

Now hand the paper to a parent to mark. Total: 48 marks.