

QT Quick Test - Grade 5C



1. (a) A train is travelling at a speed of 87 miles per hour.

Work out an estimate for the number of seconds the train takes to travel 1 mile.

(2 marks)

(b) State whether your answer is an overestimate or underestimate.

Give a reason for your answer

(1 mark)

2. Andy, Baran and Chris share some money.

Andy takes $\frac{1}{5}$ of the money.

Baran and Chris share the rest of the money in the ratio 2:3.

What percentage, of the remaining money, does Chris receive?

3. 40% of a number is 240.

Work out the number.

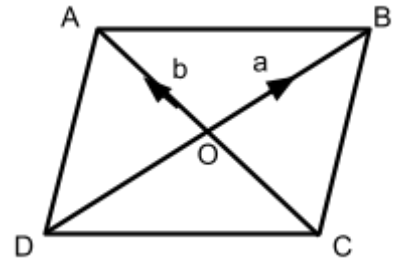
(2 marks)

QT Quick Test - Grade 5C



4. ABCD is a parallelogram.
The diagonals of the parallelogram intersect at O.

vector $OB = a$ vector $OA = b$



a) Find in terms of a , the vector BD .

(1 mark)

b) Find in terms of a and b , the vector CD .

(2 marks)

c) Find in terms of a and b , the vector CB .

(2marks)

5. There are 2 times as many red pens as blue pens and 3 times as many blue pens as yellow pens in a box.

Write down the ratio of the number of red pens to blue pens to yellow pens. (2 marks)

QT Quick Test - Grade 5C



6. Sair is buying a fridge freezer.

10% is added to the price of the fridge freezer to pay the delivery charge.

Sair then has to pay a total of £330.

What is the price of the fridge with no delivery charge?

(3 marks)

7. Sarah is driving to France for her holiday.

She will drive a total distance of 420 km.

Sarah leaves home at 5:30 in the morning.

It takes her 1.5 hours to travel the first 105 km.

Use this information to estimate the time Sarah will arrive.

(4 marks)

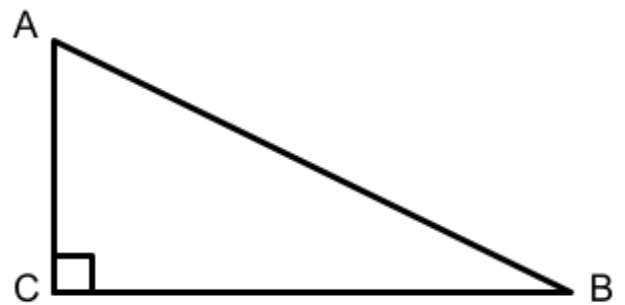
QT Quick Test - Grade 5C



8. Work out 4.1×4.24 .

(2 marks)

9. The drawing shows a right angled triangle.
AB = 33 km
angle ABC = 60°
Find the length of BC.



(3 marks)

10. Given that $a : b = 3 : 5$ and $b : c = 3 : 5$.
Find the ratio $a : b : c$.
Give your answer in its simplest form.

(2 marks)

QT Quick Test - Grade 5C



11. The equation of the line L_1 is $3y = 9x - 21$.

The equation of the line L_2 is $y - x = 14$.

Show that these two lines are not parallel.

(3 marks)

12. Aryan buys a pack of 12 bottles of water.

The pack costs £6.24.

Aryan sells all 12 bottles for 60p each.

Work out Aryan's percentage profit.

Give your answer correct to 1 decimal place.

(4 marks)

QT Quick Test - Grade 5C



13. Triangle ABC has a perimeter of 22m.

AB = 4 m and BC = 10 m.

Is triangle ABC is a right-angled triangle? Show clearly how you decide.

(3 marks)

14. The formulae show the cost 'C' of a taxi journey of x miles, with three different companies.

Alpha taxi: $C = 1.69x + 2$

Bravo taxi: $C = 1.65x$

Charlie taxi: $C = 1.2x + 6.5$

Which is the least expensive company to use for a journey of 40 miles?

Show how you got your answer.

(3 marks)

(Total 40 marks)