


A Answer

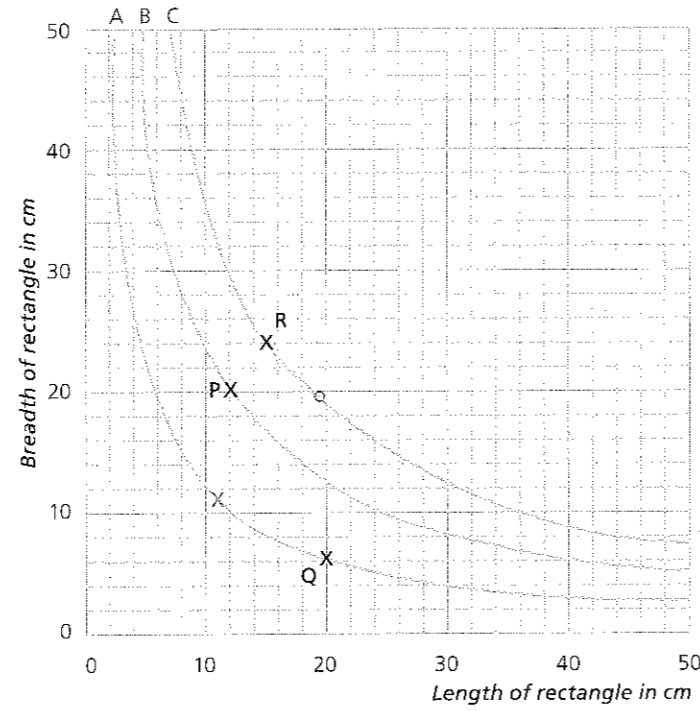
- Write down the difference between the squares of 6 and 7. **13**
- $\frac{35 \times 45}{5 \times 5} =$ **63**
- Write $2^2 \times 2^4$ as
 - a power of two **a 2^6**
 - a number. **b 64**
- Complete the blanks to make these fractions equivalent. $\frac{3}{5} = \frac{6}{10} = \frac{12}{20} = \frac{60}{100}$
- $\frac{3}{10} + \frac{3}{5} =$ **$\frac{9}{10}$**
- $2 - 0.2 - 0.22 =$ **1.58**
- $\frac{1}{0.5} - 0.5 =$ **1.5**
- 14.098 becomes 14.10 when rounded to how many decimal places? **2**
- $0.3 < \frac{3}{8} < 1.0$ True or false? **true**
- If $u = 4, v = 5, w = 6$, find the value of $3v^2 - (2u^2 - w^2)$. **79**
- $24 = 3(x + 5)$ so $x =$ **3**
- Write down the smallest multiple of both 6 and 9. **18**

B Answer

- If 50 stamps cost £21.00 how much for 20 stamps? **£8.40**
- Using the exchange rate £1 = €1.25, find how many Euros you would get for £604. **€755**
- 1l is approximately **2 pints**
- $80m \div 25 =$ **3.2m = 3m 20cm**
- Karina works three shifts of $7\frac{1}{4}h$, $7\frac{1}{2}h$ and $5\frac{1}{2}h$. How many hours altogether? **20h 15min**
- A car travels at 30mph. How long will it take to travel 5 miles? **10min**
- A roll of tape is 25mm wide and 50m long. What is its area in m^2 ? **1.25m²**
- The acute angle of a rhombus is 40° . How big is the obtuse angle? **140°**
-  What is the number of axes of symmetry of this shape? **1**
- 40 bottles each have a capacity of 248ml. Find the total capacity to the nearest litre. **10l**

C Answer

Amy is investigating the area of rectangles. She calculates the areas by multiplying the length by the breadth and plots graphs of the results. Graph B represents rectangles of area $240cm^2$.

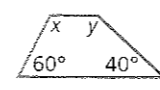



- What length of rectangle is represented by point P? **12cm**
- What breadth of rectangle is represented by point P? **20cm**
- What area of rectangle is represented by point P? **$240cm^2$**
- What length of rectangle is represented by point Q? **20cm**
- What breadth of rectangle is represented by point Q? **6cm**
- What area of rectangle is represented by point Q? **$120cm^2$**
- What area of rectangle is represented by all points that lie on graph A? **$120cm^2$**
- Mark with an x the point on graph A that represents a square. **11cm**
- Use the graph to help you to estimate the length of the side of this square. **11cm**
- What area of rectangle is represented by point R? **$360cm^2$**
- Mark with an o the point that represents a square of area $360cm^2$.
- Use the graph to help you to estimate the length of the sides of this square. **19cm**

A Answer

- Add the square of 2 to its cube. **12**
- $\frac{32 \times 72}{8 \times 12} =$ **24**
- Write $2^5 \div 2^2$ as
 - a number **a 8**
 - a power of two. **b 2^3**
- Which two of the following are equal? $\frac{3}{8}, 3.8, 3:8, 38\%, 3\frac{1}{8}$ **$\frac{3}{8} = 3:8$**
- Write $\frac{7}{10} + \frac{4}{5}$ as a mixed number. **$1\frac{1}{2}$**
- $11 \div 0.1 =$ **110**
- $(1.5)^2 + 1.5 =$ **3.75**
- 130940 becomes 131 000 when rounded to how many significant figures? **3**
- $6 < \sqrt{40} < 7$ True or false? **true**
- If $a = 2, b = 4, c = 3$, find the value of $5ab - c^3$. **13**
- $\frac{x}{x} = 4$ so $x =$ **4**
- What is the lowest common multiple of 6 and 10? **30**

B Answer

- If 240 pencils cost £15 how many pencils for £6? **96**
- I put down a 40% deposit on furniture costing £850. How much is left to pay? **£510**
- $28g \approx 1oz$. 120g is approximately **4oz**
- 6ft 6in is approximately **2m**
- A coach departs 22:35 and arrives 06:15. How long does the journey take? **7h 40min**
- A shape with an area of $4cm^2$ is enlarged by a scale factor of x . The area of the new shape is $36cm^2$. What is the value of x ? **3**
- A bicycle wheel is 50cm diameter. How far does it travel in 100 rotations? **157m**
-  For the trapezium shown write down $x =$ **120°** and $y =$ **140°**
-  What is the number of axes of symmetry of this shape? **0**
- Express 2h 25min to the nearest half hour. **$2\frac{1}{2}h$**

C Answer

Katy takes her car over to France and back. There are two ferries she can use from Portsmouth and two to return from St Malo. The table shows the ferry departure times and crossing times.

Cross-channel ferry Portsmouth – St Malo	
Departure times from Portsmouth to St Malo	7.30 a.m. 9.00 p.m.
Crossing time	8h 55min
Departure times from St Malo to Portsmouth	10.45 a.m. 9.25 p.m.
Crossing time	8h 41min

Katy departs on the early morning ferry from Portsmouth. It takes her 43min to disembark the ferry at St Malo and 85min to drive to the city of Rennes, 70km away. She then spends 1h 45min in Rennes and a further 1h 22min driving back to St Malo.

- How long is the sea crossing to St Malo? **8h 55min**
- At what time does the morning ferry from Portsmouth arrive in St Malo? **4.25 p.m.**
- How long does it take to disembark the ferry and drive to Rennes? **2h 8min**
- At what time does Katy arrive in Rennes? **6.33 p.m.**
- How long does it take to travel from Portsmouth to Rennes? **11h 3min**
- How long does it take Katy from reaching Rennes to arriving back in St Malo? **3h 7min**
- At what time does Katy get back to St Malo from Rennes? **9.40 p.m.**
- Is she in time to catch the evening ferry back to Portsmouth? **no**
- What is the departure time of the next ferry she can take to return to Portsmouth? **10.45 a.m.**
- How long is the return sea crossing to Portsmouth? **8h 41min**
- At what time does Katy arrive back at Portsmouth? **7.26 p.m.**
- How long has the whole journey taken, from Portsmouth back to Portsmouth? **35h 56min**