

AQA GCSE Mathematics Calculator 2024 Foundation Paper 3 Revision Worksheet

Questions 8–18

8. A pack of pegs costs 40p. A bar of soap costs £2.20
A basket costs £7. Dan buys two packs of pegs, one bar of soap and one basket.
What fraction of the total cost is the cost of the basket?

9. Calculate $\sqrt{625} + 7^3$

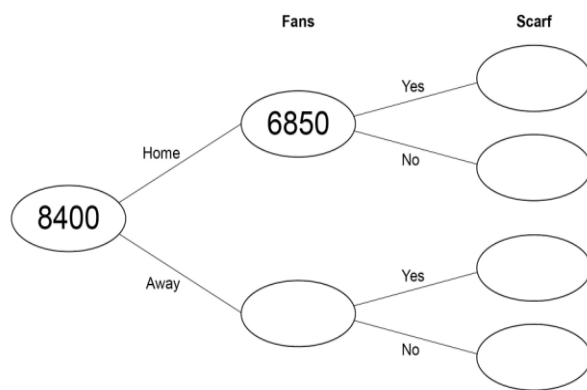
10. 8400 fans go to a rugby match.

6850 of the fans support the Home team.

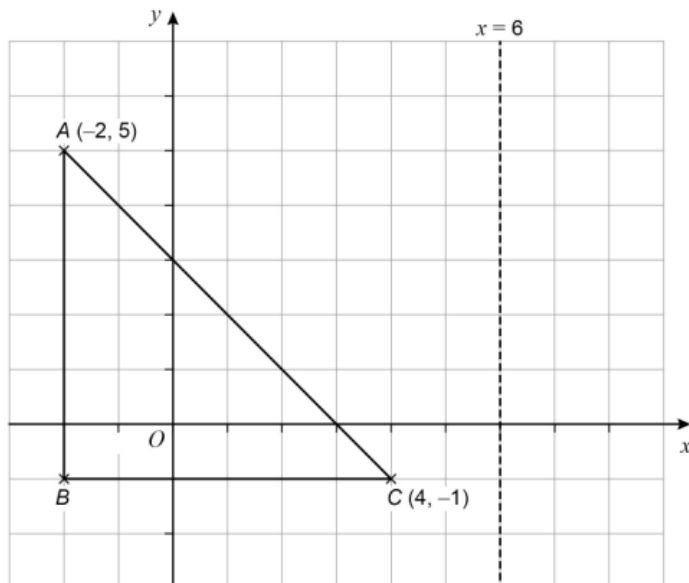
The remaining fans support the Away team.

20% of the Home fans wear a scarf. 2319 of all the fans wear a scarf.

Complete the frequency tree.



11.

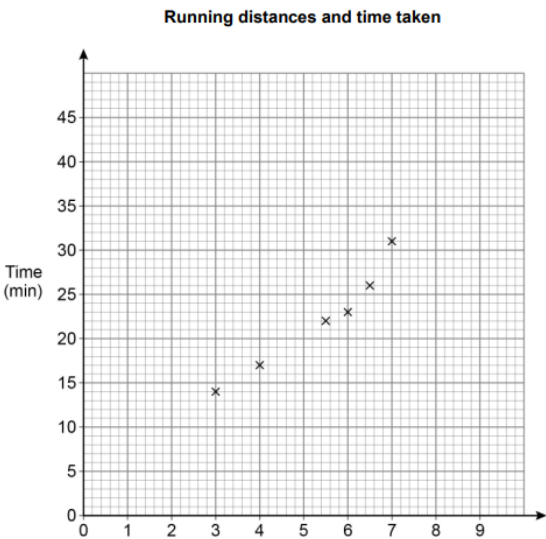


12. (a) Work out the coordinates of B on the diagram.
(b) Point C is reflected in the line $x = 6$ to point D. Work out the coordinates of D.

12. Liz records the distance of some runs and the time each run takes:

Distance (km)	3	4	5.5	6	6.5	7	8	8.5
Time (min)	14	17	22	23	26	31	38	42

The scatter graph shows some of the information from the table.



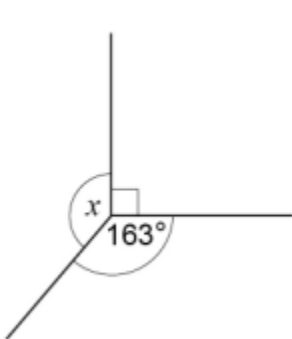
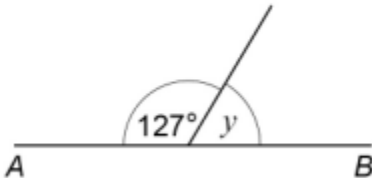
(a) Complete the graph by adding the missing label and plotting the two missing points.

(b) Describe the correlation shown in the scatter graph.

Type of correlation.

Strength of correlation.

13. AB is a straight line.



Is y half of x ? Circle. Yes / No. Show working to support your answer.

14. Multiply out $3(2x + 8)$.

15. Complete these statements:

$$\underline{\hspace{2cm}} + 5x = 9x$$

$$y \times \underline{\hspace{2cm}} = y^2$$

$$\underline{\hspace{2cm}} - 2t = t$$

16. Tins of beans are sold in shop A and shop B. At which shop is it cheaper to buy 20 tins? State how much cheaper.

- Shop A: 1 tin 64p; Buy 4 tins for the price of 3 tins
- Shop B: 1 tin 62p; Pack of 3 tins £1.70; 10% reduction in price on all packs

17. There are 30 students in a class.

12 of the students have school lunch.

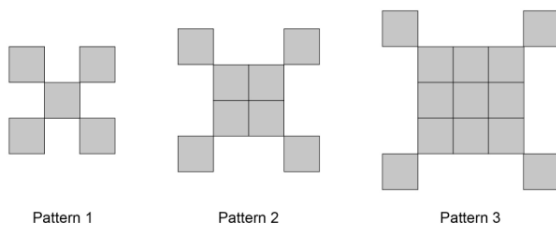
Work out the ratio students having school **lunch** : **students** not having school lunch.

Give your answer in its simplest form.

(b) In a different class, students wearing glasses : students not wearing glasses = 3 : 8.
What fraction of students in this class wear glasses?

(c) The ratio 4 : 9 is written in the form 1 : n . Work out the value of n .

18. Here are the first three Patterns in a sequence made up of small squares.



(a) On the grid, draw Pattern 4.

(b) The expression for the number of small squares in Pattern n is $n^2 + 4$. Work out the least value of n for which the number of small squares is greater than 500.