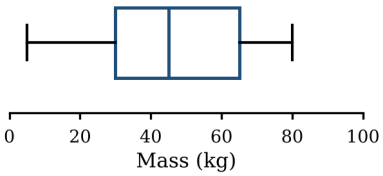
| Day 229 | A Tier 10-a-day |
|---|---|
| **1** Work out the value of $5x^2 + 4x - 7$ when $x = -4$ | |
| **2** A cuboid has length 13 cm and width 8 cm.<br>Its total surface area is 418 $cm^2$.<br>Work out the height of the cuboid. | |
| **3** (a) A train leaves London at 5:40 pm. The journey takes 4 hours 52 minutes. Work out the time it ends.<br>(b) Change 225 minutes into hours. Give your answer as a decimal. | |
| **4** Solve $2x^2 + 3x - 2 = 0$ | |
| **5** The probability that Priya hits the target is 0.8.<br>The probability that Harry hits the target is 0.3.<br>The two events are independent.<br>Work out the probability that at least one of them will hit the target. | |

**Day 229** **A Tier 10-a-day**

**6** Write the recurring decimal $0.\dot{1}2\dot{9}$ as a fraction in its simplest form.

**7** A ship leaves a port and travels 12 miles on a bearing of 095°. (Calculator)
It then travels 9 miles on a bearing of 005°.
(a) Work out how far it is now from the port.
(b) Work out the bearing of its final position from the port. Give your answer to the nearest degree.

**8** The box plot shows the masses, in kg, of the parcels in delivery A.
(a) Write down the median and the interquartile range.
For delivery B the median is 40 and the interquartile range is 45.
(b) Compare the distributions of the two deliveries.




**9** Rationalise the denominator of $\frac{29}{6+\sqrt{7}}$

Give your answer in the form $a + b\sqrt{c}$ where a and b are integers.

**10** Work out the value of x. (Calculator)
Give your answer to 3 significant figures.
The diagram is not drawn accurately.

