

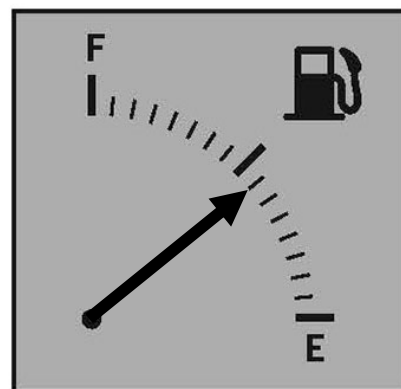
National 5 Applications of Maths: Using Measuring Scales

- 1) *SQP Paper 2 Q2, adapted.*

The fuel tank in Simon's car holds 48 litres of fuel.

The gauge on the right shows how much fuel is left in Simon's tank.

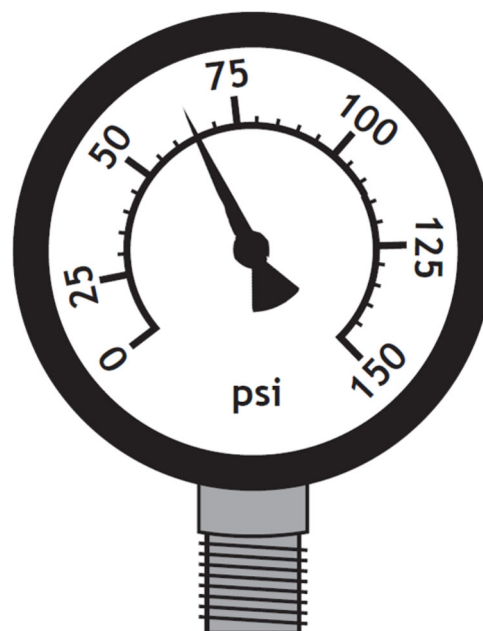
State how much fuel Simon has left.



- 2) *2015 Paper 2 Q5a, adapted.*

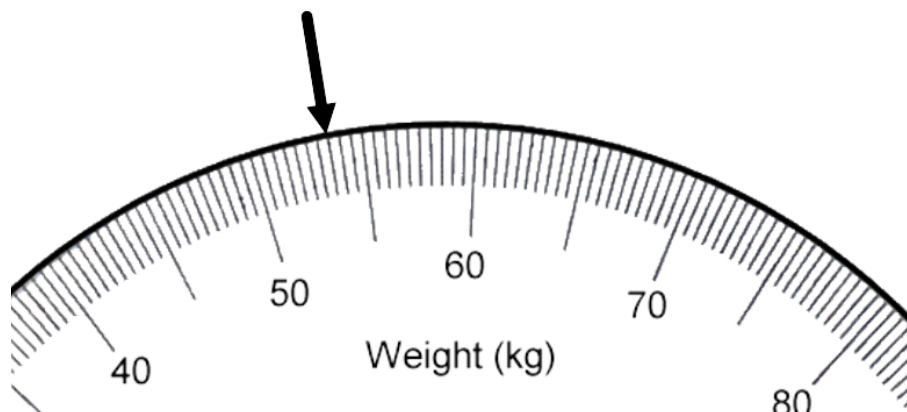
Claire measures the tyre pressure on her bicycle.

- The pressure of Claire's **front** tyre is shown on the gauge on the right. State the pressure in Claire's front tyre. The units can be found on the gauge.
- Claire's front tyre should be at a pressure of 64psi. Is the pressure in the front tyre too high or too low? Justify your answer.
- Claire's back tyre is at a pressure of 80psi. Mark this pressure on the gauge.



- 3) The diagram shows a scale for measuring the weight of vegetables in a market.

- Beth had 50kg of turnips in a sack. She added some more turnips to the sack. The new weight is shown in the diagram. State the weight in the sack shown.
- Calculate the percentage increase of the weight.
- A sack of carrots weighed 71kg. Mark an arrow on the scale to show this weight.



4) 2015 Paper 1 Q1, adapted.

Parminder knows that she can travel 360 miles on a full tank of fuel. The diagram below shows the car's fuel gauge.

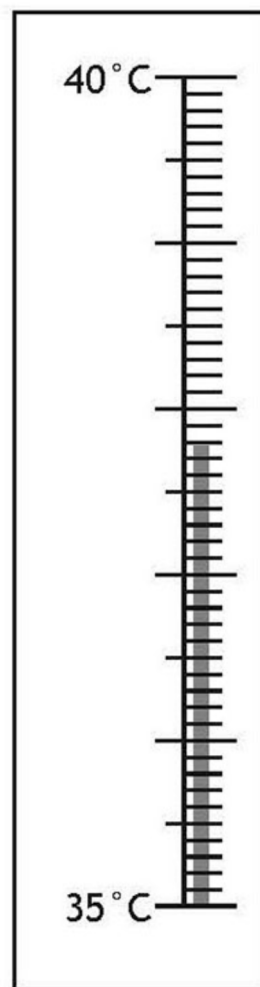
- State the number of miles that the arrow is pointing to.
- Parminder is making a trip of 130 miles. Does Parminder have enough fuel to make the journey? Justify your answer.
- Draw another arrow to mark 225 miles on the gauge.



5) 2014 Paper 1 Q2, adapted.

Liz is unwell and takes her temperature. The thermometer scale is shown in the diagram.

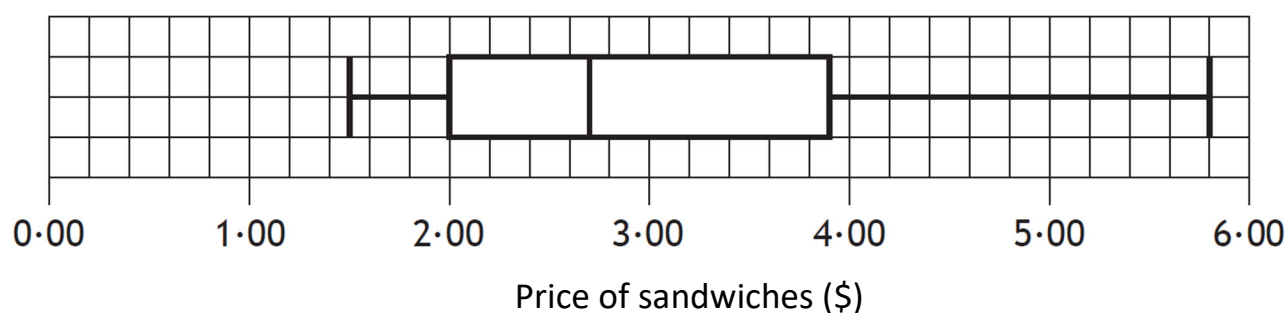
- State Liz's temperature.
- Liz's temperature rises by 8%. Calculate her new temperature.
- The next day Liz's temperature is 37.55°C . Draw another arrow to show this.



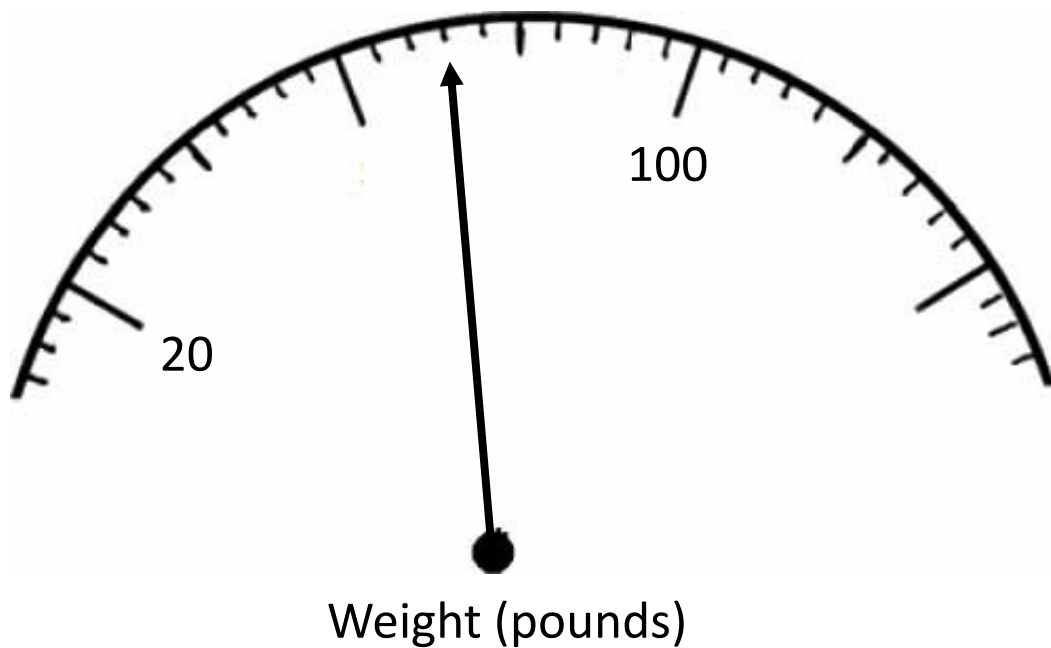
6) 2021 Paper 1 Q6 adapted.

The boxplot below shows the prices of sandwiches in a foreign country.

- State the median price.
- State the lower and upper quartiles.
- Calculate the interquartile range.



- 7) The diagram shows the gauge on a machine for measuring weight.
- a) The diagram shows the weight of coal being burned. State the weight shown on the scale.
- b) The weight of coal decreases by 5% every hour. Calculate the weight remaining after 2 hours.
- c) The next day the starting weight of coal is 124kg. Mark this weight on the scale.
- d) For the coal described in part (c), after one hour, there is 116kg of coal remaining. Calculate the percentage decrease. Give your answer correct to 1 decimal place.



- 8) 2021 Paper 2 Q3 adapted.

The graph shows the exchange rate for pounds and euro in December.

- a) State the number of pounds per euro at 9am on 7th December.
- b) Calculate the percentage decrease in the exchange rate between 9am on 7th December and 9am on 8th December. Give your answer correct to 2 decimal places.

