Round all answers to an appropriate degree of accuracy unless specifically stated

1. From a group of data, the following information is gathered:

    Lowest value: 12   Lower quartile:17   Median: 21 Upper quartile: 27   Highest value: 34

a. Work out the semi interquartile range of the data.
b. Show this information on an appropriate statistical diagram.
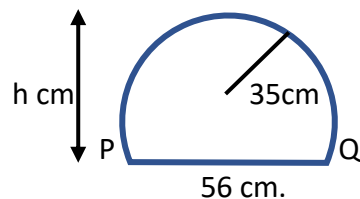
2. Evaluate
    $$a^3 b^{-\frac{1}{2}}$$
    when a = 2 and b = 36.

    Give your answer in its simplest form.

3. A line passes through the points (a, a^2) and (b,b^2)

    Work out the gradient of the line , expressing your answer in its simplest form.

4. The diagram below has a radius of 35cm and a chord PQ of length 56cm.

    h cm   35cm

    P   Q

    56 cm.

    Show clearly that the height, h cm, is the same as the chord length.

5. The volume of a sphere is 7 600 cm^3.
    Calculate the radius of the sphere
    Round your answer correct to 3 significant figures.

6. Evaluate
    $$1\frac{1}{2} + 3\frac{3}{5} \times \frac{7}{9}$$

    Give your answer in its simplest form.