Name: _____ 5-a-day Higher

22nd February

Corbettmaths

$\sqrt{7} \times \sqrt{2}$

$\sqrt{14}$

Work out

$(\sqrt{3})^2$

$\sqrt{3} \times \sqrt{3} = \sqrt{9}$

$= 3$

A sphere of diameter 4cm is cut from a cube with side length 4cm.

$4 \times 4 \times 4 = 64$

What percentage of the cube is wasted?

$\frac{4}{3} \times \pi \times r^3$

$= \frac{4}{3} \times \pi \times 2^3 = 33.51$

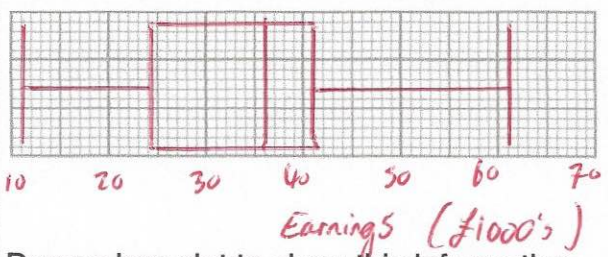
wasted

$64 - 33.51.. = 30.4896..$

$\frac{30.4896..}{64} \times 100 = 47.64\%$

A company employs 200 people.
25% of the employees earn under £24,000. LQ
50% of the employees earn over £36,000. M
The interquartile range of the earnings is £7,000. UQ = £41000
The person who earns the most is paid £61,000. Highest
The range of the earnings is £50,000.

$61000 - 50000 = 11000$



Draw a box plot to show this information

Make m the subject of

$m(r + p) = r(h - m)$

$mr + mp = rh - rm$

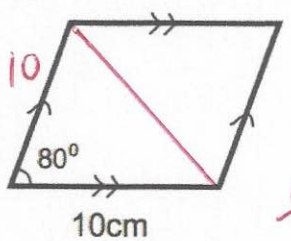
or

$mr + mp = hr - mr$

$2mr + mp = hr$

$m(2r + p) = hr$

$m = \frac{hr}{2r + p}$



$\frac{1}{2}ab\sin C$

$\frac{1}{2} \times 10 \times 10 \times \sin 80$

$= 49.24.. cm^2$

Shown is a rhombus of side length 10cm.
Calculate its area.

$98.4808 cm^2$