20th June **Higher Plus 5-a-day**

Corbettmaths

$g(x) = 3 - x$ $\quad h(x) = x^3$

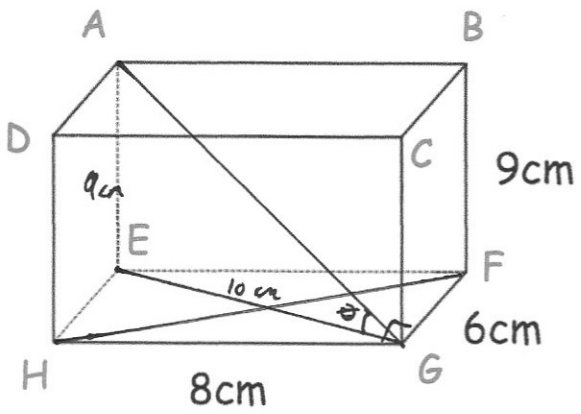
Solve $gh(x) = 30$

$3 - x^3 = 30$

$x^3 = -27$

$x = -3$

ABCDEFGH is a cuboid



Calculate the length of FH

$6^2 + 8^2 = FH^2$

$FH^2 = 100$

$FH = 10\text{cm}$

Calculate the size of angle AGE

$\tan\theta = \frac{9}{10}$

41.99°

Here are six number tiles.

3	3	4	5	5	5

Two tiles are taken without replacement.

$P(54) = \frac{3}{6} \times \frac{1}{5} = \frac{3}{30}$

$P(53) = \frac{3}{6} \times \frac{2}{5} = \frac{6}{30}$

Work out the probability that the number on the second is less than the number on the first tile.

$P(43) = \frac{1}{6} \times \frac{2}{5} = \frac{2}{30}$

$\frac{11}{30}$

Make c the subject of

$$\frac{5}{a} + \frac{b}{2} - \frac{7}{c} = 0$$

$\frac{10 + ab}{2a} = \frac{7}{c}$

$10 + ab = \frac{14a}{c}$

$c = \frac{14a}{10 + ab}$