

28th March



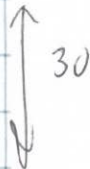
Factorise fully

$3x^2 - 48$

$3(x^2 - 16)$
 $3(x-4)(x+4)$

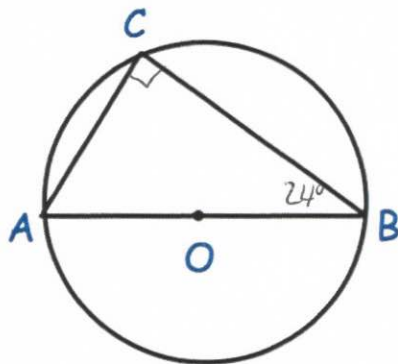
Height h (metres)	Frequency
$0 < h \leq 2$	12
$2 < h \leq 4$	8
$4 < h \leq 6$	12
$6 < h \leq 8$	10

42



Two trees are selected at random. What is the probability they are both over two metres?

$\frac{30}{42} \times \frac{29}{41} = \frac{145}{287}$



Angle ABC = 24°
 Find angle BAC

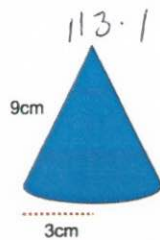
$180 - 90 - 24 = 66^\circ$

Simplify

$\frac{x^2 + 13x + 40}{x^2 + 14x + 48}$

$\frac{(x+8)(x+5)}{(x+8)(x+6)}$

$\frac{x+5}{x+6}$



497.097

Shown below is a sphere, cone and cube. The surface area of the sphere is equal to the sum the surface areas of the cone and cube. Find y .

$4\pi r^2 = 497.097$
 $\pi r^2 = 124.27...$
 $r^2 = 39.55...$
 $r = 6.29\text{cm}$