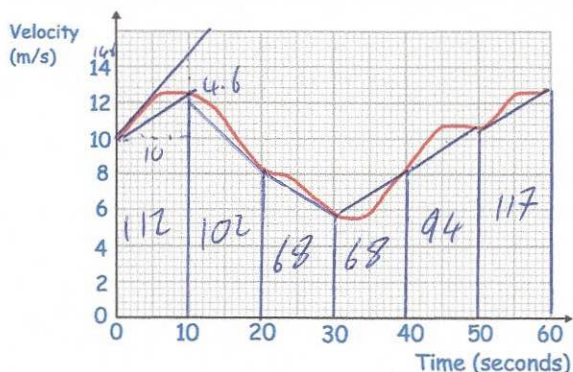**2nd February**

Corbettmaths

Rationalise

$$\frac{2}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

Here is a velocity time graph for the first 60 seconds of a journey.

Calculate an estimate for the acceleration after 5 seconds

$$0.46 \, m/s^2$$

Calculate an estimate for the total distance travelled in the 60 seconds.

6 × trapezium $\frac{1}{2}(a+b) \times h$

10

$112 + 102 + 68 + 68 + 94 + 117 =$

$\approx 561 \, m$

Solve the simultaneous equations

$y = x + 3$

$x^2 + y^2 = 29$

$x^2 + (x+3)^2 = 29$

$x^2 + x^2 + 6x + 9 = 29$

$2x^2 + 6x - 20 = 0$

$x^2 + 3x - 10 = 0$

$(x+5)(x-2) = 0$

$x = -5$ or $x = 2$

$y = -2$ or $y = 5$

A circle, centre (0, 0) has radius 4. Write the equation of the circle.

$$x^2 + y^2 = 4^2 \quad \underline{or}$$

$$x^2 + y^2 = 16$$