

26th August

$$\frac{100}{2} = 50^{\text{th}}$$



Corbettm@ths

Weight (x kg)	Frequency
$60 < x \leq 64$	10
$64 < x \leq 68$	20
$68 < x \leq 72$ ✓	30
$72 < x \leq 76$	15
$76 < x \leq 80$	18
$80 < x \leq 84$	7

100

The weights of some rugby players are recorded in the table.

Find the median by using linear interpolation.

$$68 + \frac{20}{30} \times 4 = 70.6 \text{ kg}$$

Two players are chosen at random. Calculate the probability that both players are over 68kg

$$\frac{70}{100} \times \frac{69}{99} = \frac{161}{330}$$

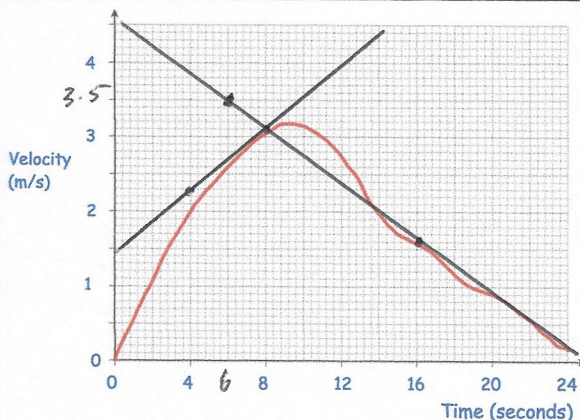
$$\sqrt{45} + x\sqrt{20} = 7\sqrt{5}$$

Find x

$$\sqrt{9} \times \sqrt{5} + x \times \sqrt{4} \times \sqrt{5} = 7\sqrt{5}$$

$$3\sqrt{5} + 2x\sqrt{5} = 7\sqrt{5}$$

$$x = 2$$



Calculate an estimate of the acceleration at 8 seconds

$$\frac{3.1 - 2.3}{8 - 4} = 0.2 \text{ m/s}^2$$

Here is a velocity-time graph of a particle for 24 seconds

Calculate an estimate of the acceleration at 16 seconds

$$\frac{1.6 - 3.5}{16 - 6} = -0.19 \text{ m/s}^2$$