

SMART EXAM RESOURCES

STAGE 7 MATHS

DIRECT- PROPORTION

- 1 The cost of 3 kg of apples is \$12. What is the cost of 5 kg of apples if the cost is directly proportional to the weight?

Solution 1:

Since cost and weight are **directly proportional**, we set up:

$$12 \div 3 = x \div 5$$

$$x = (12 \times 5) \div 3 = 20$$

$$\text{Cost} = \text{\$}20$$

- 2 If 8 machines can produce 480 units in 6 hours, how many units will 5 machines produce in the same time?

Solution 2

Machines and units produced are ****directly proportional****:

$$480 \div 8 = x \div 5$$

$$x = (480 \times 5) \div 8 = 300 \text{ units}$$