

- 11 The following table shows the mass (m grams) of a pinewood cube of side x cm.

Length of a side (x cm)	2	4	5	8	10
Mass (m grams)	5.2	41.6	81.25	332.8	650

- (a) Is m proportional to
(i) x ? (ii) x^3 ?

Show your working clearly.

- (b) Find an equation connecting m and x .
(c) Find the mass of a pinewood cube of side 9 cm.

HW26092022

- 12** The total number of apples, T , is directly proportional to the number of baskets, n , of apples. There are a total of 120 apples in 5 baskets.
- (a)** Write down the equation connecting T and n in the form $T = kn$, where k is a constant.
 - (b)** Interpret the meaning of k found in **(a)**.
 - (c)** Find the total number of apples in 8 baskets.

- 13 The price for n movie tickets is $\$P$. It is known that P is directly proportional to n and the price of 7 tickets is $\$56$.

- (a) Write down the equation connecting P and n in the form $P = kn$, where k is a constant.
- (b) Interpret the meaning of k found in (a).
- (c) Complete the following table.

n	2	4	6	8
P				

- (d) Draw the graph of P against n for $0 \leq n \leq 8$.

- 14** The cost of making a fence is directly proportional to the length of the fence.
The cost for a 4 m fence is \$240.
- (a)** Find the cost for a 7 m fence.
- (b)** If Mr Lee has a budget of only \$350,
what is the maximum length of fence he
can make?