

$$\bullet I = Prn$$

$$\bullet FV = PV(1+r)^n$$

$$\textcircled{1} a) I = Prn$$

$$P = 3600 \quad r = 0.125 \quad n = 2$$

$$\begin{aligned} \therefore I &= 3600 \times 0.125 \times 2 \\ &= \$900 \end{aligned}$$

$$b) 3600 + 900 = \$4500$$

$$c) 12 \times 2 = 24 \text{ months.}$$

$$\therefore 4500 \div 24 = \$187.50$$

$$\textcircled{2} I = Prn$$

$$P = 22800 \quad n = 18 \quad I = 3283.20 \quad r = ?$$

$$\therefore I = Prn \quad r = \frac{I}{Pn}$$

$$r = \frac{3283.20}{22800 \times 18}$$

$$= 0.008$$

$$= 0.008 \times 100$$

$$= 0.08\%$$

$$\textcircled{3} FV = PV(1+r)^n$$

$$FV = 4831.80 \quad PV = 4000 \quad n = 3$$

$$FV = PV(1+r)^n$$

$$\frac{FV}{PV} = (1+r)^n$$

$$\sqrt[n]{\frac{FV}{PV}} = 1+r \rightarrow r = \sqrt[n]{\frac{FV}{PV}} - 1$$

$$r = \sqrt[3]{\frac{4831.80}{4000}} - 1$$

$$= 0.06500$$

$$r = 6.5\%$$

$$\textcircled{4} \quad FV = PV(1+r)^n$$

$$PV = 25\,400 \quad r = \frac{2.7}{4} \quad n = 3 \times 4 = 12$$

$$= 0.00675$$

$$\therefore FV = 25\,400 (1.00675)^{12}$$

$$= \$27\,535.53$$

$$\textcircled{5} \quad FV = PV(1+r)^n$$

$$PV = 250\,000 \quad r = 0.0265 \quad n = ? \quad FV = 500\,000$$

$$\therefore FV = PV(1+r)^n$$

$$500\,000 = 250\,000 (1.0265)^n$$

$$2 = (1.0265)^n$$

$$n = \log_{1.0265} (2)$$

$$\log_{1.0265} (2) = \frac{\log_{10} 2}{\log_{10} 1.0265} = n$$

$$n = 26.5 \quad \text{but half yearly} \quad \therefore n = 13.25$$

$$\approx 13.5 \quad (\text{nearest half year})$$

$$\textcircled{6} \quad FV = PV(1+r)^n$$

$$\textcircled{6} \quad PV = 82\,000 \quad r = 0.031 \quad n = 4$$

$$\therefore FV = 82\,000 (1.031)^4$$

~~82000~~

$$= \$92\,650.66$$

$$\textcircled{1} \quad \text{a) } 26.70 \times 15\,000$$

$$= \$400\,500$$

$$\text{b) } 15000 \times 10.33$$

$$= \$4950$$

$$\text{c) dividend yield} = \frac{\text{dividend per share}}{\text{market value per share}} \times 100$$

$$= \frac{0.33}{26.70} \times 100$$

$$= 1.24\%$$

GUESS AND CHECK

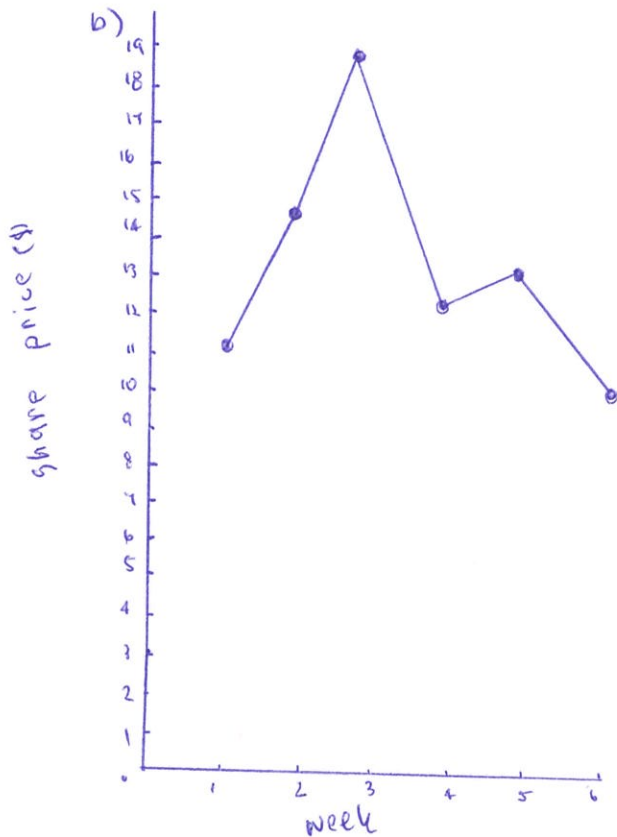
OR

LOG LAWS

8) a) \$3.54

b) \$4.15

9) a) \$8.20



c) price rose to a high at week 3, then dropped to a low at week 6.

d) NO.

10) a) \$3.40

b) \$2.05

c) 3

d) 95 cents

e) dropped in October.

• high in Nov

• dropped to the lowest point at the end of Nov

• Steady rise in December.

• Fell during Jan.

f) (i) \$2.10 (ii) \$3.00

g) Yes, price is low.

$$\textcircled{11} \text{ a) } S = V_0 - D_n$$

$$450 = 1350 - 5D$$

$$5D = 900$$

$$D = \$180$$

$$\text{b) } S = 1350 - 180 \times 3$$

$$S = \$810$$

$$\bullet S = V_0 - Dn$$

$$\textcircled{12} \text{ a) } \$37\ 800$$

b) after 1 year, cost was \$33 600

$$\therefore \$4\ 200$$

$$\text{c) } S = 37\ 800 - 4200n$$

$$S = 37\ 800 - 4200 \times 3$$

$$= \$25\ 200$$

d) depreciation \times years

$$\therefore 4\ 200 \times S = \$21\ 000$$

$$\text{e) } S = 37\ 800 - 4200n$$