

# Ulangan Harian Matematika Wajib

No.

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Kelas: XI MIPA 3

Jawaban

1) Dik:  $S_{\infty} = 81$

$$r = \frac{2}{3}$$

$$S_{\infty} = \frac{a}{1-r}$$

$$81 = \frac{a}{1 - \frac{2}{3}}$$

$$81 = \frac{a}{\frac{1}{3}}$$

$$a = 81 \times \frac{1}{3}$$

$$a = 27$$

$$U_n = ar^{n-1}$$

$$U_3 = ar^{3-1}$$

$$U_3 = ar^2$$

$$= 27 \times \left(\frac{2}{3}\right)^2$$

$$= 27 \times \frac{4}{9}$$

$$= 12$$

2) Dik:  $M_0 = 8.000.000$

$$r = 5\%$$

$$M_n = 10.400.000$$

$$M_n = M_0 (1 + i \cdot n)$$

$$10.400.000 = 8.000.000 (1 + 0,05 \cdot n)$$

$$10.400.000 = 8.000.000 + 400.000 \cdot n$$

$$10.400.000 - 8.000.000 = 400.000 \cdot n$$

$$2.400.000 = 400.000 n$$

$$n = \frac{2.400.000}{400.000}$$

$$n = 6$$

$$n = 6 \text{ triwulan}$$

$$= 6 \times 3$$

$$= 18$$

$$= \underline{1,6 \text{ tahun}}$$

$$3) U_n = ar^{n-1}$$

$$U_6 = ar^{6-1}$$

$$U_6 = ar^5$$

$$U_6 = 720 \left(\frac{2}{3}\right)^5$$

$$= 720 \times \frac{32}{243}$$

$$= 94,814814 \dots$$

$$= \underline{94 \text{ ekor pada thn 2020}}$$

