

TINGKATAN 1

BAB 3

Praktis Sumatif

Bahagian A

1 $N = 3^3 \times 6 \times 14 \times k$
 $N = 3^3 \times 2 \times 3 \times 2 \times 7 \times k$
 $N = 3^2 \times 3^2 \times 2^2 \times 7 \times k$
 Maka, $k = 7$
 Jawapan: C

2 $\sqrt{289} < \sqrt{313} < \sqrt{324}$
 $17 < \sqrt{313} < 18$
 Jawapan: B

3 $m = 0.7 < 1 \rightarrow$ semakin besar nilai kuasa, semakin kecil hasilnya
 Jawapan: D

4 $64 = 8^2 = 4^3$
 Jawapan: B

5 Panjang sisi = $\sqrt{529} = 23$ cm
 Perimeter = $4(23) = 92$ cm
 Jawapan: C

6 $\sqrt[3]{-\frac{30}{65}} \approx \sqrt[3]{-\frac{27}{64}} \approx -\frac{3}{4}$
 Jawapan: C

7 $729 < 889 < 1\,000 \rightarrow 9^3 < 889 < 10^3$
 $\therefore (t-1)^3 = 9$
 $t-1 = 9$
 $t = 10$
 Jawapan: D

8 Panjang sisi bongkah kayu $\sqrt[3]{2\,744} = 14$ cm
 Panjang sisi kotak = $14 + 1.5 + 1.5$
 (ruang di sebelah kiri dan kanan setiap sisi) = 17 cm
 Isi padu kotak = $17^3 = 4\,913$ cm³
 Jawapan: D

9 $\sqrt{50} \times \sqrt{18} - \sqrt{4}$
 $= \sqrt{25(2)} \times \sqrt{9(2)} - \sqrt{4}$
 $= 5\sqrt{2} \times 3\sqrt{2} - 2$ ← $\sqrt{2} \times \sqrt{2} = 2$
 $= 5(3)(2) - 2$
 $= 28$
 Jawapan: A

10 $\sqrt[3]{66\,000} = \sqrt[3]{66} \times \sqrt[3]{1\,000}$
 $\sqrt[3]{64} < \sqrt[3]{66} < \sqrt[3]{125}$
 $4 < \sqrt[3]{66} < 5$
 $\sqrt[3]{1\,000} = 10$
 $4 \times 10 < \sqrt[3]{66} \times \sqrt[3]{1\,000} < 5 \times 10$
 $40 < \sqrt[3]{66\,000} < 50$
 Jawapan: D

Bahagian B

1 (a)

343	Kuasa dua sempurna Kuasa tiga sempurna
1 331	
784	
256	

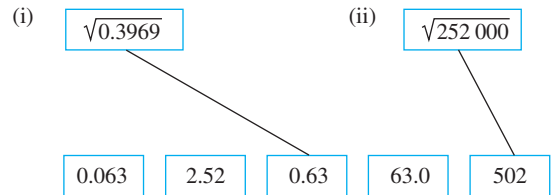
(b) $6.3^2 = 39.69 \rightarrow \sqrt{39.69} = 6.3$
 $5.02^2 = 25.2 \rightarrow \sqrt{25.2} = 5.02$

$$\begin{array}{r} \sqrt{0.3969} \\ 0 \cdot 6 \cdot 3 \\ \hline \end{array}$$

$$\sqrt{0.3969} = 0.63$$

$$\begin{array}{r} \sqrt{252000} \\ 5 \cdot 0 \cdot 2 \\ \hline \end{array}$$

$$\sqrt{252\,000} = 502$$



Bahagian C

1 (a) $\sqrt[3]{-\frac{3}{5\,184}} = \sqrt[3]{-\frac{3}{16 \times 12 \times 27}}$
 $\sqrt[3]{-\frac{3}{16 \times 12 \times 27}}$
 $= \sqrt[3]{-\frac{3}{4 \times 4 \times 4 \times 3 \times 3 \times 3 \times 3}}$
 $= \sqrt[3]{-\frac{1}{4 \times 4 \times 4 \times 3 \times 3 \times 3}}$
 $= \sqrt[3]{-\frac{1}{4^3 \times 3^3}}$
 $= -\frac{1}{12}$

(b) $\frac{6^2 + \sqrt[3]{-216} - (2^3 - \sqrt{144})}{\sqrt{0.25}}$
 $= \frac{36 + (-6) - (8 - 12)}{0.5}$
 $= \frac{36 - 6 - (-4)}{0.5}$
 $= \frac{34}{0.5}$
 $= 68$

(c) Setiap sisi mempunyai 13 benih.
 Jumlah benih dalam kotak = $13^2 = 169$
 Baki benih = $196 - 169 = 27$ biji
 Lebihan benih boleh ditanam dalam kotak segi empat sama yang lain dengan 5 benih setiap barisan iaitu
 $5^2 = 25$ biji.

(d) (i) Panjang sisi tangki = x
 Kubus terbuka mempunyai 5 permukaan dengan luas setiap permukaan = x^2
 $5x^2 = 845$
 $x^2 = 169$
 $x = 13$ cm
 (ii) Isi padu = $13^3 = 2\,197$ cm³