

TINGKATAN 1

BAB 3

Praktis Sumatif

Bahagian A

- $N = 3^3 \times 6 \times 14 \times k$
 $N = 3^3 \times 2 \times 3 \times 2 \times 7 \times k$
 $N = 3^2 \times 3^2 \times 2^2 \times 7 \times k$
Maka, $k = 7$
Jawapan: C
- $\sqrt{289} < \sqrt{313} < \sqrt{324}$
 $17 < \sqrt{313} < 18$
Jawapan: B
- $m = 0.7 < 1 \rightarrow$ semakin besar nilai kuasa, semakin kecil hasilnya
Jawapan: D
- $64 = 8^2 = 4^3$
Jawapan: B
- Panjang sisi = $\sqrt{529} = 23$ cm
Perimeter = $4(23) = 92$ cm
Jawapan: C
- $\sqrt[3]{-\frac{30}{65}} \approx \sqrt[3]{-\frac{27}{64}} \approx -\frac{3}{4}$
Jawapan: C
- $729 < 889 < 1\,000 \rightarrow 9^3 < 889 < 10^3$
 $\therefore (t-1)^3 = 9$
 $t-1 = 9$
 $t = 10$
Jawapan: D
- 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

$$\begin{aligned}
 9 \quad & \sqrt{50} \times \sqrt{18} - \sqrt{4} \\
 &= \sqrt{25(2)} \times \sqrt{9(2)} - \sqrt{4} \\
 &= 5\sqrt{2} \times 3\sqrt{2} - 2 \quad \leftarrow \boxed{\sqrt{2} \times \sqrt{2} = 2} \\
 &= 5(3)(2) - 2 \\
 &= 28
 \end{aligned}$$

Jawapan: A

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

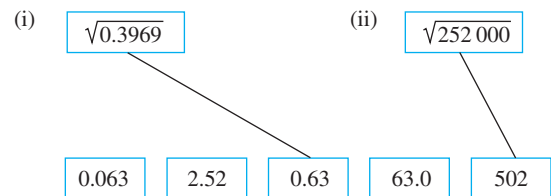
Bahagian B

- | | |
|------|--|
| 343 | |
| 1331 | |
| 784 | |
| 256 | |

$$\begin{aligned}
 (b) \quad & 6.3^2 = 39.69 \rightarrow \sqrt{39.69} = 6.3 \\
 & 5.02^2 = 25.2 \rightarrow \sqrt{25.2} = 5.02
 \end{aligned}$$

$$\begin{aligned}
 & \sqrt{0.3969} \\
 & \begin{array}{r} 0.63 \\ 0.63 \\ \hline 0.3969 \end{array} \\
 & \sqrt{0.3969} = 0.63
 \end{aligned}$$

$$\begin{aligned}
 & \sqrt{252\,000} \\
 & \begin{array}{r} 502 \\ 502 \\ \hline 252\,000 \end{array} \\
 & \sqrt{252\,000} = 502
 \end{aligned}$$



Bahagian C

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

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

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