

TINGKATAN 2

BAB 6

Praktis Sumatif

Bahagian A

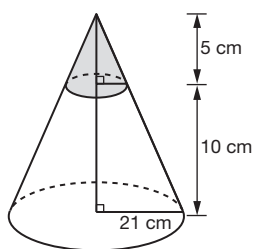
1 Jawapan: D

2 Jawapan: C

$$3 \quad \frac{5}{j} = \frac{15}{21}$$

$$15j = 105$$

$$j = 7 \text{ cm}$$



Isi padu frustum

$$= \left(\frac{1}{3} \times \frac{22}{7} \times 21^2 \times 15 \right) - \left(\frac{1}{3} \times \frac{22}{7} \times 7^2 \times 5 \right)$$

$$= 6\,673 \frac{1}{3} \text{ cm}^3$$

Jawapan: B

4 Luas permukaan kubus – Luas tapak hemisfera + Luas permukaan melengkung hemisfera

$$= (6 \times 14 \times 14) - \left(\frac{22}{7} \times 7^2 \right) + \left(2 \times \frac{22}{7} \times 7^2 \right)$$

$$= 1\,330 \text{ cm}^2$$

Jawapan: A

$$5 \quad MN = \sqrt{3^2 + 4^2}$$

$$= 5 \text{ cm}$$

Jumlah luas permukaan = $(6 \times 8) + (2 \times 6) + (4 \times 6) + (6 \times 5) +$

$$(5 \times 6) + 2 \left[(8 \times 2) + \left(\frac{1}{2} \times 4 \times 3 \right) \right]$$

$$= 48 + 12 + 24 + 30 + 30 + 2(22)$$

$$= 188 \text{ cm}^2$$

Jawapan: D

6 Isi padu pepejal = Isi padu kon + Isi padu hemisfera

$$= \left(\frac{1}{3} \times \pi \times 3^2 \times 7 \right) + \left(\frac{2}{3} \times \pi \times 3^2 \right)$$

$$= 39\pi$$

Jawapan: C

7 Isi padu pepejal yang tinggal = Isi padu silinder – Isi padu kon

$$= \left(\frac{22}{7} \times 5^2 \times 14 \right) - \left(\frac{1}{3} \times \frac{22}{7} \times 5^2 \times 7 \right)$$

$$= 916 \frac{2}{3} \text{ cm}^3$$

Jawapan: B

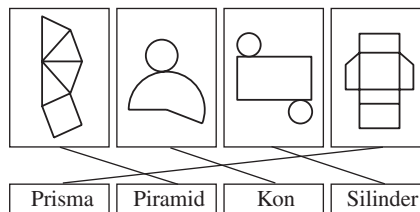
$$8 \quad \frac{60}{40} \times 20 \times 15 \times 6 = 2\,700 \text{ cm}^3$$

Jawapan: C

Bahagian B

- 1 (a) Kon
(b) Sfera
(c) Piramid
(d) Silinder

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- 3 (a) (i) ✓
(ii) ✗
(b) $\pi r(r + q)$

Bahagian C

1 (a) Isi padu bekas

$$= \left(\frac{22}{7} \times 7^2 \times 30 \right) - \left(\frac{1}{3} \times \frac{22}{7} \times 7^2 \times 10 \right)$$

$$= 4\,620 - 513 \frac{1}{3}$$

$$= 4\,106 \frac{2}{3} \text{ cm}^3$$

Bilangan minimum cawan digunakan

$$= 4\,106 \frac{2}{3} \div 50$$

$$= 82.13$$

$$= 83 \text{ kali}$$

(b) Isi padu ruang kosong

$$= \left(\frac{22}{7} \times 3^2 \times 24 \right) - 4 \left(\frac{4}{3} \times \frac{22}{7} \times 3^3 \right)$$

$$= 226 \frac{2}{7} \text{ cm}^3$$

Peratusan isi padu ruang kosong

$$\frac{226 \frac{2}{7}}{678 \frac{6}{7}} \times 100\%$$

$$= 33 \frac{1}{3}\%$$

2 (a) $\pi j^2 t = 128\pi$

$$\pi j^2 (16) = 128\pi$$

$$j^3 = 8$$

$$j = 2 \text{ cm}$$

$$FG = 16 \times 2$$

$$= 32 \text{ cm}$$

(b) $\left(\frac{1}{2} \times 4 \times \frac{22}{7} \times 7^2 \right) + \left(\frac{22}{7} \times 7 \times s \right) = 858$

$$308 + 22s = 858$$

$$22s = 550$$

$$s = 25 \text{ cm}$$

$$\text{Tinggi kon} = \sqrt{25^2 - 7^2}$$

$$= 24 \text{ cm}$$

$$\text{Tinggi pepejal} = 24 + 7$$

$$= 31 \text{ cm}$$