

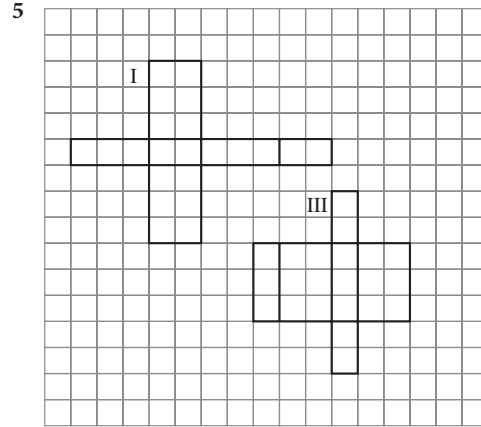
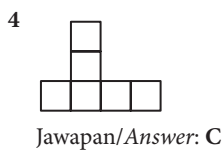
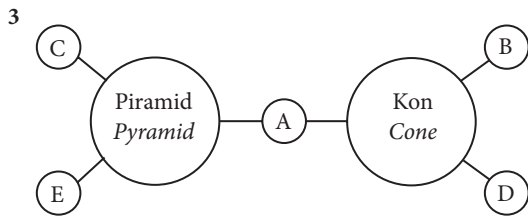
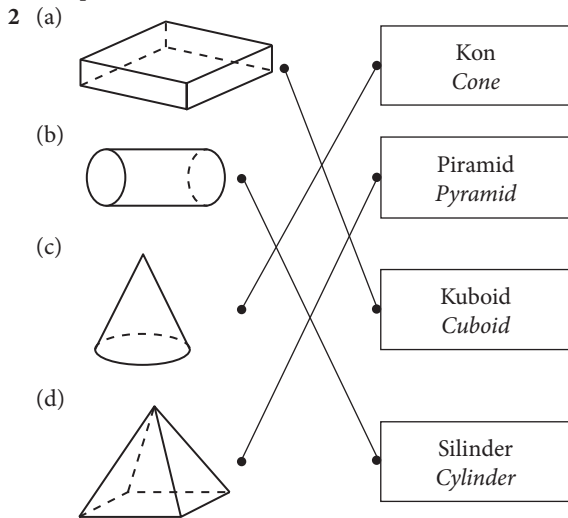
Jawapan

Praktis 6

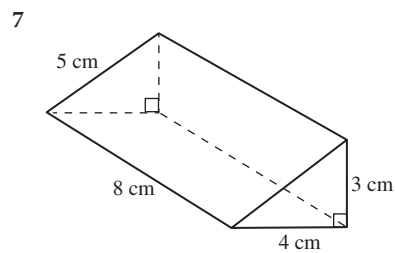
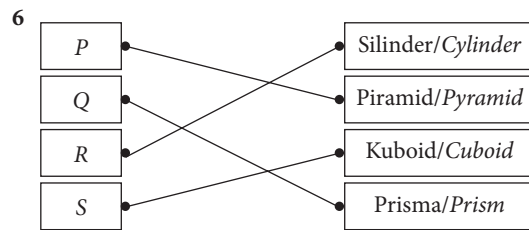
Praktis Formatif



Silinder
Cylinder
Jawapan/Answer: D



Jawapan/Answer: C



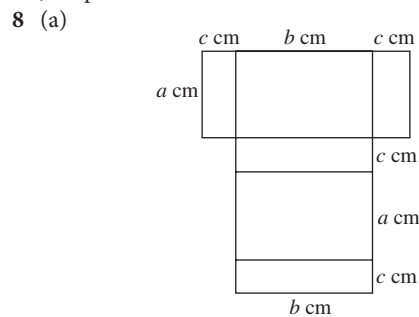
Luas permukaan bagi prisma
Surface area of prism

$$= 8 \times 4 + 8 \times 5 + 8 \times 3 + 2 \times \frac{1}{2} \times 4 \times 3$$

$$= 32 + 40 + 24 + 12$$

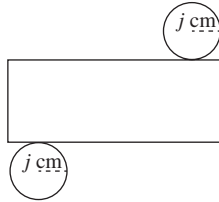
$$= 108 \text{ cm}^2$$

Jawapan/Answer: B



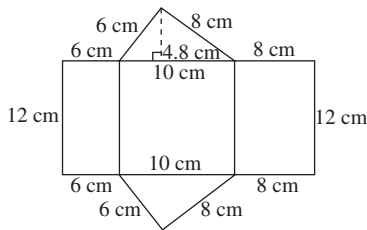
- (b) Luas permukaan kuboid
Surface area of cuboid
 $= ac + ab + bc + ac + ab + bc$
 $= 2ac + 2ab + 2bc$
 $= 2(ac + ab + bc) \text{ cm}^2$

9 (a)



- (b) Panjang segi empat tepat = lilitan bulatan
Length of rectangle = circumference of circle
 $= 2\pi j \text{ cm}$
 Lebar segi empat tepat = tinggi silinder
Width of rectangle = height of cylinder
 $= t \text{ cm}$
 Luas permukaan silinder
Surface area of cylinder
 $= \text{luas segi empat tepat} + 2 \times \text{luas bulatan}$
 $= \text{area of rectangle} + 2 \times \text{area of circle}$
 $= 2\pi j \times t + 2 \times \pi j^2$

10 (a)

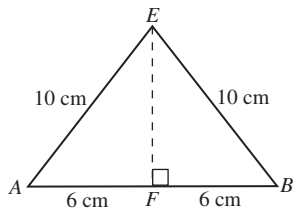


- (b) Luas permukaan bagi prisma
Surface area of prism
 $= 12 \times 10 + 12 \times 8 + 12 \times 6 + 2 \times \frac{1}{2} \times 10 \times 4.8$
 $= 120 + 96 + 72 + 48$
 $= 336 \text{ cm}^2$

11 Luas permukaan silinder

Surface area of cylinder
 $= 2 \times \pi \times 4^2 + 2\pi \times 4 \times 10$
 $= 32\pi + 80\pi$
 $= 112\pi \text{ cm}^2$

12 (a)



$$EF^2 = 10^2 - 6^2$$

$$= 100 - 36$$

$$= 64$$

$$EF = 8 \text{ cm}$$

Jarak E dari AB ialah 8 cm.

Distance of E from AB is 8 cm.

- (b) Luas segi empat sama ABCD
Area of square ABCD
 $= 12 \times 12$
 $= 144 \text{ cm}^2$

- (c) Luas segi tiga ABE
Area of triangle ABE

$$= \frac{1}{2} \times 12 \times 8$$

$$= 48 \text{ cm}^2$$

- (d) Luas permukaan piramid
Surface area of pyramid
 $= 144 + 4 \times 48$
 $= 336 \text{ cm}^2$

- 13 (a) Luas bulatan/*Area of circle*
 $= 3.14 \times 10^2$
 $= 314 \text{ cm}^2$

- (b) Luas permukaan melengkung
Curved surface area
 $= 3.14 \times 10 \times 30$
 $= 942 \text{ cm}^2$

- (c) Luas permukaan kon
Surface area of cone
 $= 314 + 942$
 $= 1256 \text{ cm}^2$

14 Jejari belon, $j = 2 \text{ m}$

Radius of balloon, $j = 2 \text{ m}$

Luas permukaan balon

Surface area of balloon

$$= 4\pi(2)^2$$

$$= 16\pi \text{ m}^2$$

- 15 (a) Luas permukaan sfera
Surface area of sphere

$$= 4 \times \frac{22}{7} \times 7^2$$

$$= 616 \text{ cm}^2$$

- (b) Luas permukaan sfera
Surface area of sphere

$$= 4 \times \frac{22}{7} \times 14^2$$

$$= 2464 \text{ cm}^2$$

- 16 $2 \times \pi \times 6^2 + 2\pi \times 6 \times y = 216\pi$
 $72 + 12y = 216$

$$12y = 144$$

$$y = 12$$

- 17 (a) Luas permukaan ABCD
Surface area of ABCD

$$= 10 \times 16$$

$$= 160 \text{ cm}^2$$

Luas permukaan ABFE

Surface area of ABFE

$$= 10 \times 12$$

$$= 120 \text{ cm}^2$$

Luas permukaan BCGF

Surface area of BCGF

$$= 16 \times 12$$

$$= 192 \text{ cm}^2$$

Luas permukaan *EFKJ*

Surface area of EFKJ

$$= \frac{1}{2} \times (4 + 10) \times 4$$

$$= \frac{1}{2} \times 14 \times 4$$

$$= 28 \text{ cm}^2$$

Luas permukaan *FGLK*

Surface area of FGLK

$$= 16 \times 5$$

$$= 80 \text{ cm}^2$$

Luas permukaan *JKLM*

Surface area of JKLM

$$= 4 \times 16$$

$$= 64 \text{ cm}^2$$

- (b) Luas permukaan pepejal gabungan

Surface area of composite solid

$$= 160 + 2(120) + 2(192) + 2(28) + 2(80) + 64$$

$$= 160 + 240 + 384 + 56 + 160 + 64$$

$$= 1\,064 \text{ cm}^2$$

- 18 Isi padu piramid

Volume of pyramid

$$= \frac{1}{3} \times 12 \times 10 \times 15$$

$$= 600 \text{ cm}^3$$

Jawapan/Answer: B

- 19 (a) Isi padu prisma = $\frac{1}{2}$ × isi padu kuboid

$$\text{Volume of prism} = \frac{1}{2} \times \text{volume of cuboid}$$

$$= \frac{1}{2} \times a \times b \times c$$

$$= \text{luas tapak} \times \text{tinggi}$$

$$\text{area of base} \times \text{height}$$

- (b) Luas bulatan × tinggi

Area of circle × height

$$= \pi r^2 t$$

- 20 (a) Isi padu kuboid = 3 × isi padu piramid

Volume of cuboid = 3 × volume of pyramid

- (b) Isi padu piramid = $\frac{1}{3}$ × luas tapak × tinggi

$$\text{Volume of pyramid} = \frac{1}{3} \times \text{base area} \times \text{height}$$

- 21 Isi padu prisma/*Volume of prism*

$$= \frac{1}{2} \times 8 \times 6 \times 4$$

$$= 96 \text{ cm}^3$$

- 22 (a) Isi padu piramid

Volume of pyramid

$$= \frac{1}{3} \times 21 \times 4$$

$$= 28 \text{ cm}^3$$

- (b) Isi padu piramid = 20 cm³

Volume of pyramid = 20 cm³

$$\frac{1}{3} \times L \times 5 = 20$$

$$5L = 60$$

$$L = 12$$

Luas tapak = 12 cm²

Base area = 12 cm²

- (c) Isi padu kon = 80 cm³

Volume of cone = 80 cm³

$$\frac{1}{3} \times 30 \times t = 80$$

$$10t = 80$$

$$t = 8$$

Tinggi/Height = 8 cm

- 23 (a) Isi padu bola tenis

Volume of tennis ball

$$= \frac{4}{3} \times \frac{22}{7} \times 3.5^3$$

$$= 179.7 \text{ cm}^3$$

- (b) Isi padu bola lisut

Volume of softball

$$= \frac{4}{3} \times \frac{22}{7} \times 4.9^3$$

$$= 493 \text{ cm}^3$$

- (c) Isi padu bola sepak

Volume of football

$$= \frac{4}{3} \times \frac{22}{7} \times 10.85^3$$

$$= 5\,352.4 \text{ cm}^3$$

- 24 (a) Isi padu prisma

Volume of prism

$$= \frac{1}{2} \times 8 \times 16 \times 11$$

$$= 704 \text{ cm}^3$$

- (b) $\frac{22}{7} \times j^2 \times 14 = 704$

$$j^2 = 16$$

$$j = 4 \text{ cm}$$

- 25 Isi padu pepejal gabungan

Volume of composite solid

$$= \pi \times 3^2 \times 4 + \frac{2}{3} \pi \times 3^3$$

$$= 36\pi + 18\pi$$

$$= 54\pi \text{ cm}^3$$

- 26 (a) $x(3)(15) + 10(x)(8) = 1\,500$

$$45x + 80x = 1\,500$$

$$1\,25x = 1\,500$$

$$x = 12$$

- (b) Luas permukaan pepejal gabungan

Surface area of composite solid

$$= 2(12 \times 15) + 2(12 \times 3) + 2(15 \times 3)$$

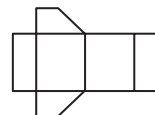
$$+ 2(10 \times 12) + 2(10 \times 8)$$

$$= 360 + 72 + 90 + 240 + 160$$

$$= 922 \text{ cm}^2$$

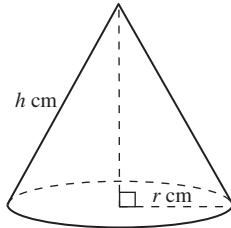
Praktis Sumatif

1



Jawapan/Answer: A

2



$$h : r = 3 : 4$$

$$\frac{h}{r} = \frac{3}{4}$$

$$h = \frac{3}{4}r$$

$$\frac{1}{3}\pi r^2 h = 2000\pi$$

$$\frac{1}{3}\pi r^2 \left(\frac{3}{4}r\right) = 2000\pi$$

$$\frac{1}{4}r^3 = 2000$$

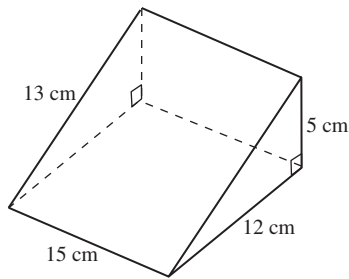
$$r^3 = 8000$$

$$r = \sqrt[3]{8000}$$

$$= 20 \text{ cm}$$

Jawapan/Answer: C

3



Luas permukaan prisma

Surface area of prism

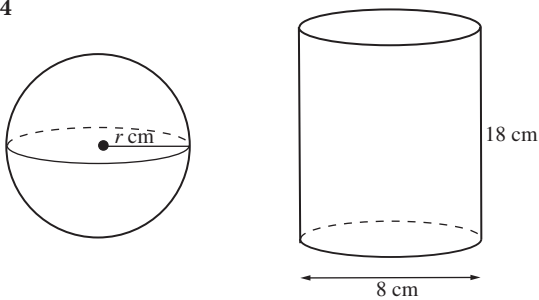
$$= 15 \times 12 + 15 \times 13 + 15 \times 5 + 2 \times \frac{1}{2} \times 12 \times 5$$

$$= 180 + 195 + 75 + 60$$

$$= 510 \text{ cm}^2$$

Jawapan/Answer: D

4



$$\frac{4}{3}\pi r^3 = \pi(4)^2(18)$$

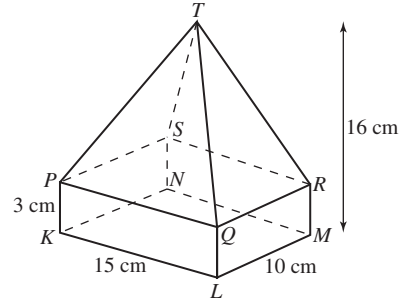
$$\frac{4}{3}r^3 = 288$$

$$r^3 = 216$$

$$r = 6 \text{ cm}$$

Jawapan/Answer: B

5



Isi padu pepejal gabungan

Volume of composite solid

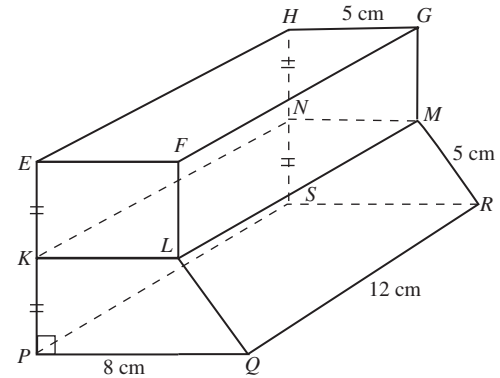
$$= 15 \times 10 \times 3 + \frac{1}{3} \times 15 \times 10 \times 16$$

$$= 450 + 650$$

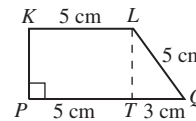
$$= 1100 \text{ cm}^3$$

Jawapan/Answer: B

6



(a)



$$LT^2 = 5^2 - 3^2$$

$$= 25 - 9$$

$$= 16$$

$$LT = 4 \text{ cm}$$

$$KP = 4 \text{ cm}$$

(b) Isi padu pepejal

Volume of solid

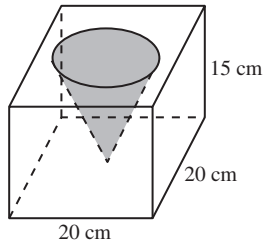
$$= \frac{1}{2} \times (5 + 8) \times 4 \times 12 + 5 \times 12 \times 4$$

$$= \frac{1}{2} \times 13 \times 4 \times 12 + 240$$

$$= 312 + 240$$

$$= 552 \text{ cm}^3$$

7



$$20^2 \times 15 - \frac{1}{3}\pi \times 7^2 \times h = 5\,384$$

$$6\,000 - \frac{1}{3} \times \frac{22}{7} \times 7^2 \times h = 5\,384$$

$$6\,000 - \frac{154}{3}h = 5\,384$$

$$\frac{154}{3}h = 616$$

$$h = 12 \text{ cm}$$