

Penyelesaian Lengkap

PRAKTIS 6

Bahagian A

- Prisma mempunyai keratan rentas yang seragam.
Prism has uniform cross section.
Jawapan/Answer: A
- Jawapan/Answer: C
- Bentangan bagi silinder terdiri daripada sebuah segi empat tepat dan dua buah bulatan.
The net of a cylinder consists of a rectangle and two circles.
Jawapan/Answer: B
- Bentangan itu mewakili prisma dengan segi tiga sebagai keratan rentas seragam.
The net represents prism with triangle as uniform cross section.
Jawapan/Answer: D
- Luas permukaan/Surface area
 $= 6 \times (9 \times 9)$
 $= 6 \times 81$
 $= 486 \text{ cm}^2$
Jawapan/Answer: B
- Luas permukaan/Surface area
 $= 2(5 \times 3) + 2(8 \times 3) + 2(5 \times 8)$
 $= 30 + 48 + 80$
 $= 158 \text{ cm}^2$
Jawapan/Answer: C
- Luas permukaan/Surface area
 $= (10 \times 10) + 4\left(\frac{1}{2} \times 10 \times 12\right)$
 $= 100 + 240$
 $= 340 \text{ cm}^2$
Jawapan/Answer: B
- Luas permukaan/Surface area
 $= 2\left(\frac{1}{2} \times 9 \times 4\right) + (4 \times 12) + (3 \times 12) + (6 \times 12)$
 $+ (5 \times 12)$
 $= 36 + 48 + 36 + 72 + 60$
 $= 252 \text{ cm}^2$
Jawapan/Answer: A
- Luas permukaan/Surface area $= 2\pi r(r + h)$
 $= 2 \times \frac{22}{7} \times 6 \times (6 + 15)$
 $= 792 \text{ cm}^2$
Jawapan/Answer: D
- Luas permukaan/Surface area $= \pi r^2 + \pi r l$
 $= \pi r(r + l)$

$$= \frac{22}{7} \times 7 \times (7 + 25)$$

$$= 704 \text{ cm}^2$$

Jawapan/Answer: D

$$11 \text{ Luas permukaan/Surface area} = 4\pi r^2$$

$$= 4 \times \frac{22}{7} \times 3.5^2$$

$$= 154 \text{ cm}^2$$

Jawapan/Answer: A

$$12 \text{ Luas permukaan/Surface area} = 2\pi r^2 + \pi r^2$$

$$= 3\pi r^2$$

$$= 3 \times \frac{22}{7} \times 7^2$$

$$= 462 \text{ cm}^2$$

Jawapan/Answer: C

$$13 \text{ Luas permukaan/Surface area} = 2\pi r^2 + \pi r l$$

$$= 2\pi(6)^2 + \pi(6)(14)$$

$$= 72\pi + 84\pi$$

$$= 156\pi$$

$$= 156 \times \frac{22}{7}$$

$$= 490.29 \text{ cm}^2$$

Jawapan/Answer: B

$$14 \text{ Isi padu/Volume} = \frac{1}{2} \times (3 + 7) \times 5 \times 16$$

$$= \frac{1}{2} \times 10 \times 5 \times 16$$

$$= 400 \text{ cm}^3$$

Jawapan/Answer: A

$$15 \text{ Isi padu/Volume} = \frac{22}{7} \times 8^2 \times 28$$

$$= 5 \text{ 632 cm}^3$$

Jawapan/Answer: B

$$16 \text{ Isi padu/Volume} = \frac{1}{3} \times \frac{22}{7} \times 10.5^2 \times 24$$

$$= 2 \text{ 772 cm}^3$$

Jawapan/Answer: C

$$17 \text{ Isi padu/Volume} = \frac{1}{3} \times 16 \times 16 \times 15$$

$$= 1 \text{ 280 cm}^3$$

Jawapan/Answer: A

$$18 \text{ Isi padu/Volume} = \frac{4}{3} \times \frac{22}{7} \times 6^3$$

$$= 905.14 \text{ cm}^3$$

Jawapan/Answer: D

$$19 \text{ Isi padu/Volume} = \frac{2}{3} \times \frac{22}{7} \times 9^3$$

$$= 1 \text{ 527.43 cm}^3$$

Jawapan/Answer: B

20 Isi padu/Volume = 1 020

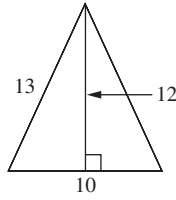
$$\frac{1}{2} \times 10 \times 12 \times x = 1\,020$$

$$60x = 1\,020$$

$$x = \frac{1\,020}{60}$$

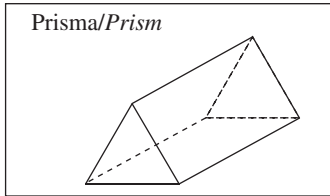
$$= 17$$

Jawapan/Answer: C

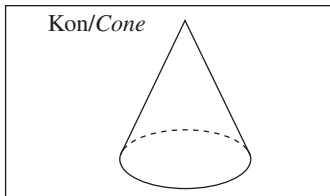


Bahagian B

1 (a)



Mempunyai keratan rentas seragam.
Has a uniform cross section.



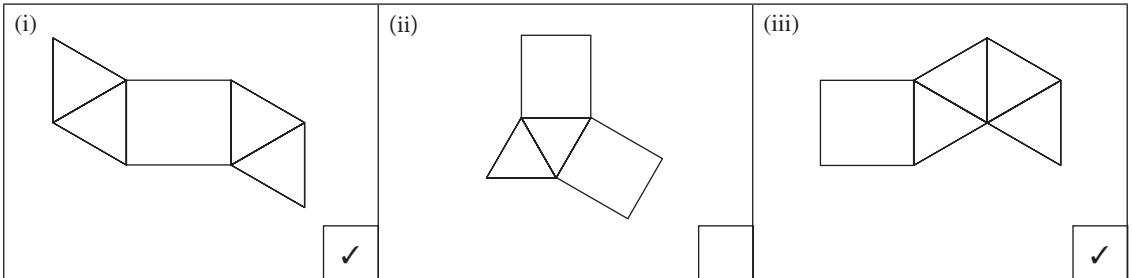
Mempunyai dua permukaan membulat dan satu permukaan melengkung.
Has two circular surfaces and one curved surface.

Mempunyai satu permukaan membulat dan satu permukaan melengkung.
Has a circular surface and a curved surface.

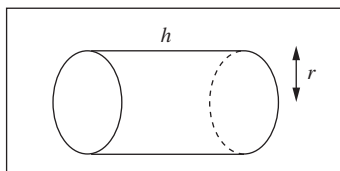
(b) (i) Sfera/Sphere

(ii) Piramid/Pyramid

2 (a)

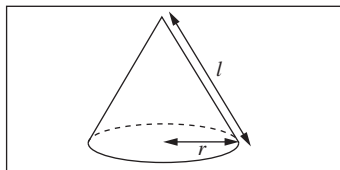


(b)



$$\pi r(r + h)$$

$$2\pi r(r + h)$$



$$\frac{1}{2}\pi r(r + l)$$

$$\pi r(r + l)$$

3 (a) ✗

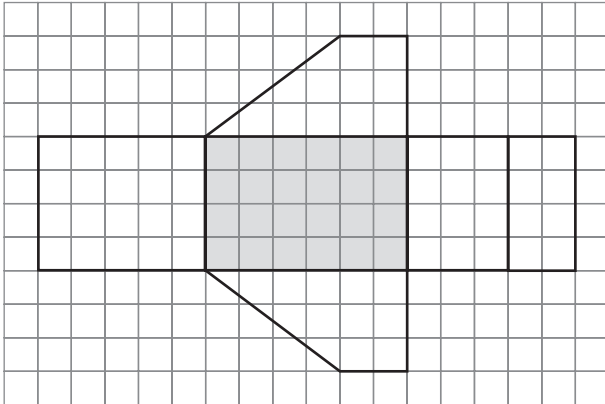
(b) ✓

(c) ✗

(d) ✓

Bahagian C

1 (a)



(b) (i) Isi padu silinder/*Volume of cylinder*

$$= \frac{22}{7} \times 7^2 \times 18$$

$$= 2\,772 \text{ cm}^3$$

(ii) Isi padu kuboid/*Volume of cuboid* = 2 772

$$21 \times 12 \times t = 2\,772$$

$$t = \frac{2\,772}{252}$$

$$= 11 \text{ cm}$$

(c) Luas permukaan/*Surface area* = 640 cm²

$$2\left(\frac{1}{2} \times 15 \times 8\right) + (15 \times x) + (8 \times x) + (17 \times x) = 640$$

$$40x + 120 = 640$$

$$40x = 640 - 120$$

$$x = \frac{520}{40}$$

$$= 13$$

2 (a) Lilitan/*Circumference* = 66 cm

$$2 \times \frac{22}{7} \times r = 66$$

$$\frac{44}{7} r = 66$$

$$r = 66 \times \frac{7}{44}$$

$$= 10.5 \text{ cm}$$

$$\text{Isi padu/Volume} = \frac{1}{3} \times \frac{22}{7} \times 10.5^2 \times 35$$

$$= 4\,042.5 \text{ cm}^3$$

(b) (i) Luas permukaan/*Surface area*

$$= 2\pi r^2 + 2\pi r h$$

$$= 2\pi r(r + h)$$

$$= 2 \times \frac{22}{7} \times 7 \times (7 + 23)$$

$$= 1\,320 \text{ cm}^2$$

(ii) Isi padu/*Volume* = $\pi r^2 h$

$$= \frac{22}{7} \times 7^2 \times 23$$

$$= 3\,542 \text{ cm}^3$$

(c) Isi padu/*Volume* = 855 cm³

$$\frac{1}{2} \times (4 + x) \times 6 \times 19 = 855$$

$$57(4 + x) = 855$$

$$4 + x = \frac{855}{57}$$

$$4 + x = 15$$

$$x = 15 - 4$$

$$= 11$$