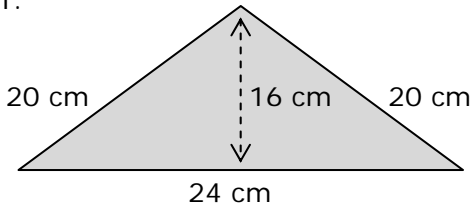


Routine Measurement Practice #4

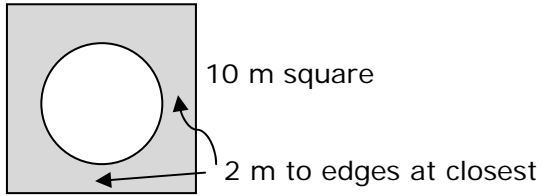
1.



Area =

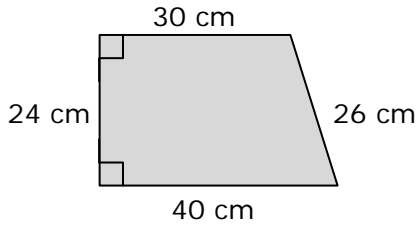
Perimeter =

2.



Shaded area = Perimeter =

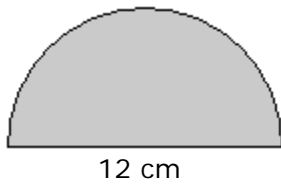
3.



Area =

Perimeter =

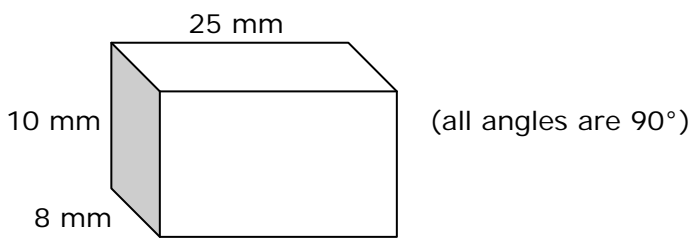
4.



Area =

Perimeter =

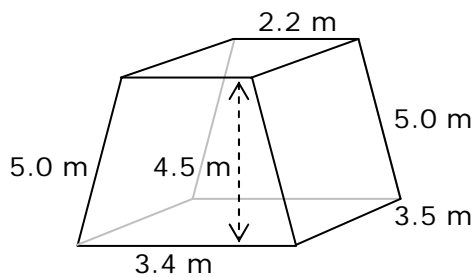
5.



Volume =

Surface Area =

6.



Volume =

Surface Area =

Answers: Routine Measurement Practice #4

Area

Q1 $\frac{1}{2} \times \text{base} \times \text{height}$

$$\frac{1}{2} \times 24 \times 16 = \mathbf{192 \text{ cm}^2}$$

Q2 $\text{base} \times \text{height} - \pi \times \text{radius}^2$

$$(10 \times 10) - (\pi \times 3^2) = \mathbf{71.73 \text{ m}^2}$$

Q3 $\text{average base} \times \text{height}$

$$\frac{30+40}{2} \times 24 = \mathbf{840 \text{ cm}^2}$$

or

rectangle + triangle



$$(30 \times 24) + (\frac{1}{2} \times 10 \times 24) = \mathbf{840 \text{ cm}^2}$$

Q4 $\text{half circle} = \frac{1}{2} \times \pi \times r^2$

$$\frac{1}{2} \times \pi \times 6^2 = \mathbf{56.55 \text{ cm}^2}$$

Perimeter

all sides added together

$$24 + 20 + 20 = \mathbf{64 \text{ cm}}$$

square = $10 \times 4 = 40 \text{ m}$

circle = $\pi \times 6 = 18.85 \text{ m}$

total = $\mathbf{56.85 \text{ m}}$

all sides added together

$$30 + 24 + 40 + 26 = \mathbf{120 \text{ cm}}$$

half circle + side = $(\frac{1}{2} \times \pi \times d) + d$

$$\frac{1}{2} \times \pi \times 12 + 12 = \mathbf{30.85 \text{ cm}}$$

Volume

Q5 $\text{base} \times \text{height} \times \text{depth}$

$$8 \times 10 \times 25 = \mathbf{2,000 \text{ mm}^3}$$

Surface Area

6 sides, all base \times height

$$(8 \times 10) + (8 \times 25) + (10 \times 25) + (8 \times 10) + (8 \times 25) + (10 \times 25) = \mathbf{1,060 \text{ mm}^2}$$

Q6 $\text{base area (av. base} \times \text{height)} \times \text{depth}$

$$(\frac{2.2+3.4}{2} \times 4.5) \times 3.5 = \mathbf{44.1 \text{ m}^3}$$

four rectangles + two trapeziums

$$(2.2 \times 3.5) + (5 \times 3.5) + (5 \times 3.5) + (3.4 \times 3.5)2 + (\frac{2.2+3.4}{2} \times 4.5) = \mathbf{79.8 \text{ m}^2}$$

Remember to check units as well as the number answer