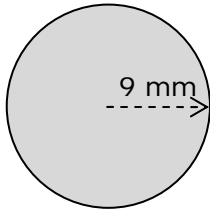


### Basic Measurement Practice #5

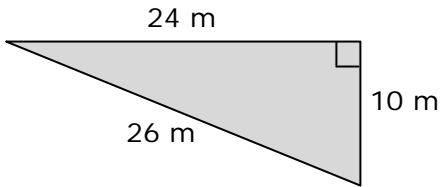
1.



Area = .....

Perimeter = .....

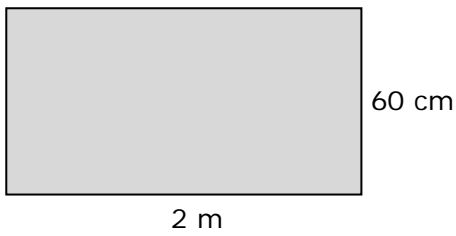
2.



Area = .....

Perimeter = .....

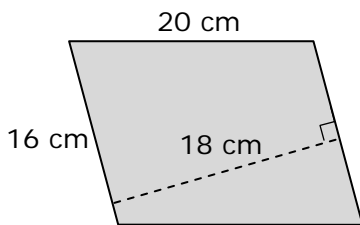
3.



Area = .....

Perimeter = .....

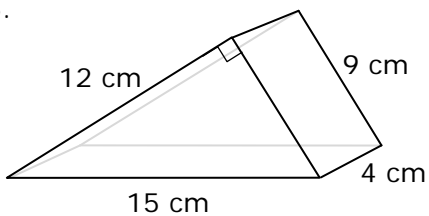
4.



Area = .....

Perimeter = .....

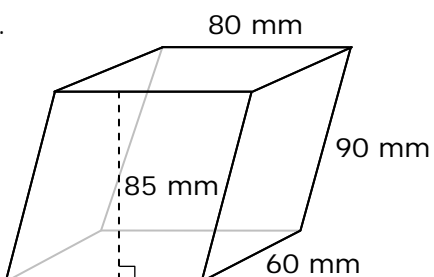
5.



Volume = .....

Surface Area = .....

6.



Volume = .....

Surface Area = .....

## Answers: Basic Measurement Practice #5

### Area

1.  $\pi \times \text{radius}^2$   
 $\pi \times 9^2 = 254.5 \text{ mm}^2$

2.  $\frac{1}{2} \times \text{base} \times \text{height}$   
 $\frac{1}{2} \times 24 \times 10 = 120 \text{ m}^2$

3. must have all the same units  
 $200 \times 60 = 12,000 \text{ cm}^2$   
or  
 $2 \times 0.6 = 1.2 \text{ m}^2$

4. base  $\times$  height (at  $90^\circ$  to base)  
 $16 \times 18 = 288 \text{ cm}^2$

### Volume

5.  $\frac{1}{2} \times \text{base} \times \text{height} \times \text{depth}$   
 $\frac{1}{2} \times 12 \times 9 \times 4 = 216 \text{ cm}^3$   
(note: 15 is not the base!)

6. base area (parallelogram)  $\times$  depth  
 $b \times h \times d$   
 $80 \times 85 \times 60 = 408,000 \text{ mm}^3$   
(note: 90 is not the height!)

### Perimeter

$\pi \times \text{diameter}$   
 $\pi \times 18 = 56.5 \text{ mm}$

all sides added together  
 $24 + 10 + 26 = 60 \text{ m}$

all sides added together  
 $200 + 60 + 200 + 60 = 520 \text{ cm}$   
or  
 $2 + 0.6 + 2 + 0.6 = 5.2 \text{ m}$

all sides added together  
 $20 + 16 + 20 + 16 = 72 \text{ cm}$

### Surface Area

3 rectangular sides + 2 triangular ends  
 $(12 \times 4) + (9 \times 4) + (15 \times 4) +$   
 $(\frac{1}{2} \times 12 \times 9) + (\frac{1}{2} \times 12 \times 9)$   
 $= 252 \text{ cm}^2$

4 rectangle sides + 2 parallelogram ends  
 $(80 \times 60) + (90 \times 60) + (80 \times 60)$   
 $+ (90 \times 60) + (80 \times 85) + (80 \times 85)$   
 $= 34,000 \text{ mm}^2$

Remember to check units as well as the number answer