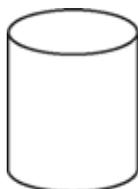


### Identifying Right Cylinders and Right Prisms

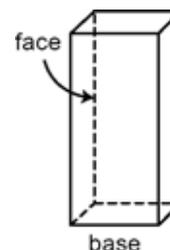
Right prisms and right cylinders have lateral **faces** that meet the **base** at  $90^\circ$ .



This is a right cylinder.

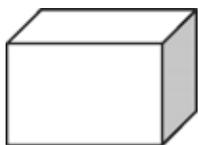


This is not a right cylinder.

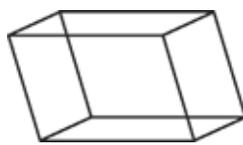


1. Identify the right prisms and right cylinders. Explain how you know.

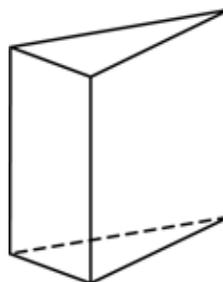
a)



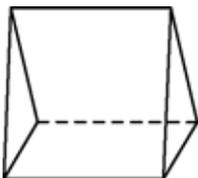
b)



c)



d)



e)



f)



### Use Mental Math

Mental mathematics includes estimating answers mentally. When asked to estimate, give an approximate but carefully thought-out answer.



To estimate  $58 \times 3.7$ , use numbers that are easy to work with.

$50 \times 3 = 150$       Use front-end estimation.

$60 \times 4 = 240$       Use relative size estimation.

$60 \times 3 = 180$       Round one up and the other down.

The answer to  $58 \times 3.7$  is between 150 and 240.

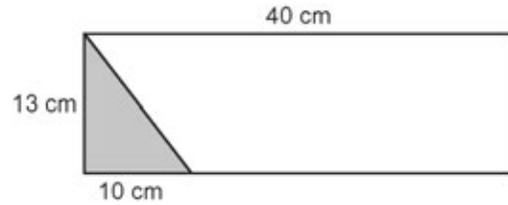
2. Estimate each answer. Show your thinking.

a)  $7.6 \times 24$     b)  $96 \times 8.1$     c)  $2.9 \times 68$

**Calculating Area**

Area measures the region inside a two-dimensional space.

This rectangle has a shaded triangle.  
What is the area of the remaining part  
of the rectangle?



$$\begin{aligned}\text{Area of rectangle} &= l \times w \\ A &= 40 \times 13 \\ A &= 520\end{aligned}$$

The area of the rectangle is 520 cm<sup>2</sup>.

$$\begin{aligned}\text{Area of triangle} &= (b \times h) \div 2 \\ A &= (10 \times 13) \div 2 \\ A &= 130 \div 2 \\ A &= 65\end{aligned}$$

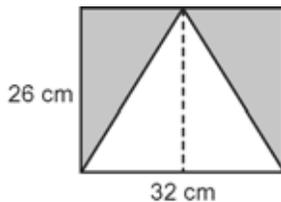
The area of the triangle is 65 cm<sup>2</sup>.

$$\begin{aligned}\text{Area of unshaded region} &= \text{Area of rectangle} - \text{Area of triangle} \\ A &= 520 - 65 \\ A &= 455\end{aligned}$$

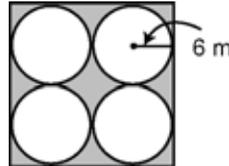
The area of the unshaded region is 455 cm<sup>2</sup>.

**3.** Calculate the area of each shaded region.

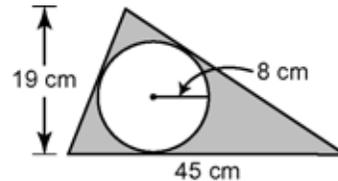
**a)**



**b)**



**c)**

**Repeated Multiplication**

$6^2$  can be written as  $6 \times 6$ .

$$6^2 = 6 \times 6$$

{repeated multiplication}

$$= 36$$

$6^2$  is read as  
"6 squared" or  
"6 to the power of 2".

$2^3$  can be written as  $2 \times 2 \times 2$ .

$$2^3 = 2 \times 2 \times 2$$

$$= 8$$

$2^3$  is read as  
"2 cubed" or  
"2 to the power of 3".

**4.** Write as repeated multiplication,  
then calculate each answer.

**a)**  $4^3$  **b)**  $3^5$  **c)**  $7^2$  **d)**  $5^4$

**5.** Is  $3^4$  the same as  $4^3$ ? Justify your  
response.