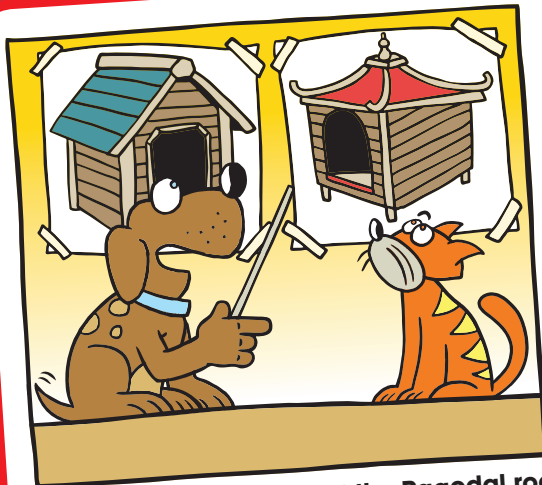


Additional Topics

Topic 1 Transformations

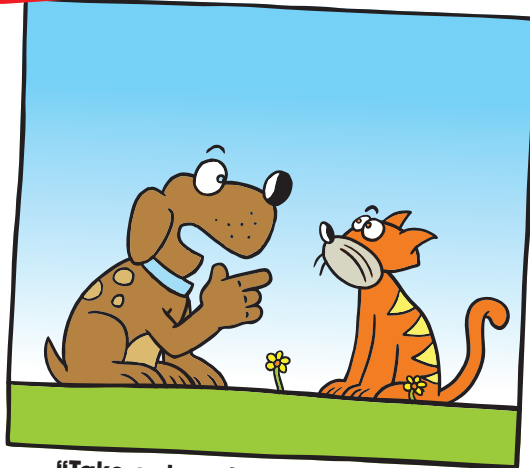
Topic 2 Volume



"I was thinking that I want the Pagodal roof instead of the Swiss chalet roof for my new dog house."



"Because PAGODAL rearranges to spell 'A DOG PAL.'"



"Take a deep breath and hold it."



"Now, do you feel like your surface area or your volume is increasing more?"

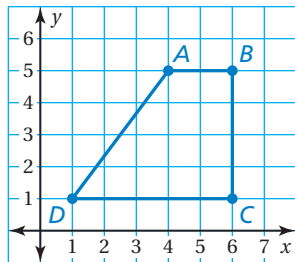


What You Learned Before

Graphing in the Coordinate Plane

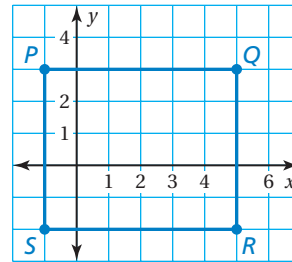
Example 1 The points represent vertices of a polygon. Graph the polygon in a coordinate plane. Then identify the polygon.

a. $A(4, 5), B(6, 5), C(6, 1), D(1, 1)$



∴ The polygon is a trapezoid.

b. $P(-1, 3), Q(5, 3), R(5, -2), S(-1, -2)$

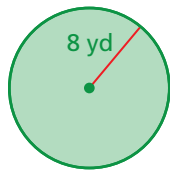


∴ The polygon is a rectangle.



Finding Areas of Circles

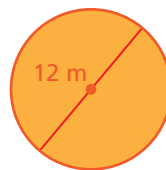
Example 2 Find the area.



$$\begin{aligned} A &= \pi r^2 \\ &\approx 3.14 \cdot (8)^2 \\ &= 3.14 \cdot 64 \\ &= 200.96 \end{aligned}$$

∴ The area is about 200.96 square yards.

Example 3 Find the area.



$$\begin{aligned} A &= \pi r^2 \\ &\approx 3.14 \cdot (6)^2 \\ &= 3.14 \cdot 36 \\ &= 113.04 \end{aligned}$$

∴ The area is about 113.04 square meters.

Try It Yourself

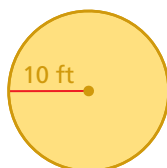
The points represent vertices of a polygon. Graph the polygon in a coordinate plane. Then identify the polygon.

1. $E(1, 2), F(6, 3), G(5, -1), H(2, -2)$

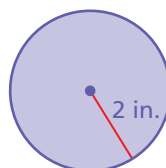
2. $J(-3, 4), K(3, 4), L(3, -2), M(-3, -2)$

Find the area.

3.



4.



5.

