12 TAKS PRACTICE

PRACTICE FOR TAKS OBJECTIVE 8

1. The edge length of a cube is 4 times the edge length of another cube. How many times greater is the surface area of the larger cube than the surface area of the smaller cube?

A 4

B 8

C 16

D 24

2. The base area and height of a triangular prism are multiplied by a factor of 6. How many times greater is the surface area of the new prism than the surface area of the original prism?

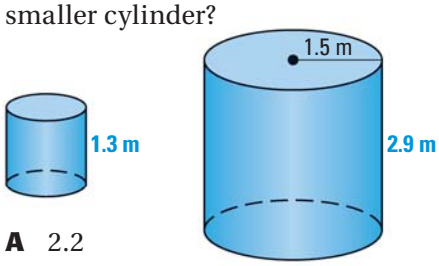
F 6

G 30

H 216

J Not here

3. The two cylinders shown below are similar. About how many times greater is the volume of the larger cylinder than the volume of the smaller cylinder?



A 2.2

B 5.0

C 6.5

D 11.0

4. A crate has a surface area of 9 square meters. The dimensions of another crate are k times the dimensions of the first crate. If the second crate has a surface area of 10.89 square meters, what is k?

F 0.83

G 1.07

H 1.10

J 1.21

5. A pyramid has a volume of 125 cubic feet. The dimensions of a second pyramid are 80% of the corresponding dimensions of the first pyramid. What is the volume of the second pyramid?

A 51.2 ft^3

B 64 ft^3

C 80 ft^3

D 100 ft^3

MIXED TAKS PRACTICE

6. A pool is a rectangular prism with a base of 90 square feet. If filled to the top, the pool can hold 495 cubic feet of water. However, the water level of the pool is currently x feet from the top. Which equation represents w, the number of cubic feet of water in the pool, as a function of x? *TAKS Obj. 2*

F $w = 495 - 90x$

G $w = 495x - 90$

H $w = 495 + 90x$

J $w = 495(90 + x)$

7. A specific shade of orange paint is made by mixing 5 parts yellow paint with 4 parts red paint. How much yellow paint is needed to make 12 ounces of the shade of orange paint? *TAKS Obj. 9*

A 5.33 oz

B 6.67 oz

C 9.6 oz

D 15 oz

8. Max wants to write an expression that will always produce an even integer. Which of the following will always produce an even integer for any given integer, n? *TAKS Obj. 2*

F $\frac{n}{2} + 2$

G $2n - 1$

H $n^2 - 1$

J Not here