PRACTICE FOR TAKS OBJECTIVE 6
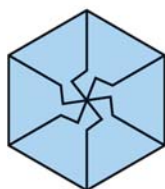
1. Borders for a bedroom wall can be created using transformations of a stencil. Which border is created using a translation and a rotation of the previous stencil in the pattern?

A

B

C

D

2. A new tile pattern is being designed for a kitchen floor. Which transformation is used to create the tile pattern shown?

F Reflection

G Rotation

H Translation

J Dilation

3. $\angle A$ and $\angle B$ are vertical angles and $m\angle A$ is x. Which equation can be used to find y if $y = m\angle B$?

A $y = x$

B $y = 90 + x$

C $y = 90 - x$

D $y = 180 - x$

4. Start with a circle having a diameter of 1 unit. In each iteration, perform the following steps for the diameter of each circle resulting from the previous iteration.

  Step 1: Divide the diameter into two equal segments.

  Step 2: Draw new circles, each with the new diameter.

What fraction of the area of the circle with a diameter of 1 unit is the area of the smallest circle created in the third iteration?

F $\dfrac{1}{128}$

G $\dfrac{1}{64}$

H $\dfrac{1}{16}$

J $\dfrac{1}{4}$

MIXED TAKS PRACTICE

5. How does the graph of $y = x^2 + 3$ differ from the graph of $y = x^2 - 5$? *TAKS Obj. 5*

  A The graph of $y = x^2 + 3$ is wider than the graph of $y = x^2 - 5$.

  B The graph of $y = x^2 + 3$ is narrower than the graph of $y = x^2 - 5$.

  C The graph of $y = x^2 + 3$ is 8 units above the graph of $y = x^2 - 5$.

  D The graph of $y = x^2 + 3$ is 2 units below the graph of $y = x^2 - 5$.

6. A diameter of a circle has endpoints $(-3, 4)$ and $(-2, -3)$. About how long is a radius of the circle? *TAKS Obj. 7*

  F 2.5 units

  G 3.5 units

  H 5.1 units

  J 7.1 units