

Florida Geometry
Chapter 1 - Sunshine State Standards Practice Solutions

A. III: A segment is the part of a line consisting of two endpoints and all point between.

B. IV: An angle bisector is a ray that divides an angle into two congruent angles.

C. V: A construction is a geometric figure made using a straightedge and compass.

D. II: A net is a two-dimensional diagram of a three-dimensional figure.

E. I: Congruent angles are angles with the same measure.

1. D
 B, A, E, C, D is not a possible arrangement because E needs to be to the right of D , and it is not in this arrangement.

2. H
The area of the rectangle is $A = bh = (36)(25) = 900 \text{ cm}^2$ and is equal to the area of the square. So,
 $900 = s^2$
 $s = \sqrt{900}$
 $s = 30 \text{ cm}$
and the perimeter of the square is $P = 4s = 4(30) = 120 \text{ cm}$.

4. F
The area that Rick paints is the sum of the area of the four walls minus the areas of the doorway and window. The total area of the walls is $A = 2 \cdot (12)(8) + 2 \cdot (10)(8) = 192 + 160 = 352 \text{ ft}^2$. The area of the doorway is $A = (3)(7) = 21 \text{ ft}^2$ and the area of the window is $A = (6)(5) = 30 \text{ ft}^2$. Therefore, the area that Rick painted is $352 - 21 - 30 = 301 \text{ ft}^2$.

5. C
If $m\angle A + m\angle B = 180$, then $m\angle A + m\angle B \neq 90$. Thus they cannot be complementary angles.

7. D
Let x be the measure of the angle. You can write the equation and solve for x :
 $x = 2(180 - x) - 12$
 $x = 360 - 2x - 12$
 $3x = 348$
 $x = 116$

11. C

$$\begin{aligned} AB &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \\ &= \sqrt{(-3 - 1)^2 + (-1 - 7)^2} \\ &= \sqrt{(-4)^2 + (-8)^2} \\ &= \sqrt{16 + 64} \\ &= \sqrt{80} \end{aligned}$$