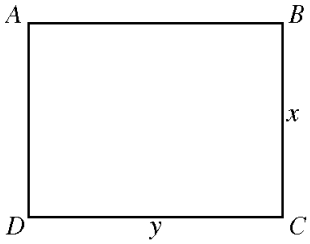
معهد التكنولوجيا التطبيقية
INSTITUTE OF APPLIED TECHNOLOGY

SAT Focused Practice Worksheet 2- Geometry – Perimeter-Area-Volume-Pythagorean Theorem

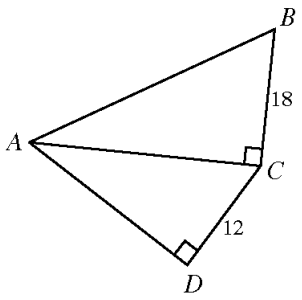
Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. In rectangle *ABCD* below, $x = \frac{4}{5}y$. What is the value of *y* in terms of the perimeter *p*?



a. $\frac{p}{5}$
b. $\frac{5p}{18}$
c. $\frac{5p}{14}$
d. $\frac{18p}{5}$
e. $\frac{p}{18}$

____ 2. In the figure below, ΔABC and ΔACD are right triangles, $DC = 12$, and $BC = 18$. If the area of $\Delta ACD = 96$, what is the area of polygon *ABCD?*



a. 520
b. 456
c. 276
d. 240
e. 16

____ 3. If the circumference of a circle is *x*, then what is the area of the circle in terms of *x*?

a. $\frac{x}{2\pi}$

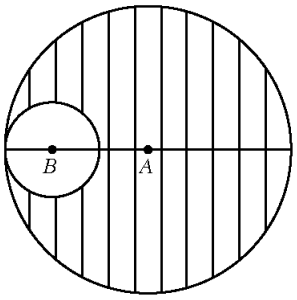
b. $2\pi x^2$

c. $\frac{x^2}{4\pi}$

d. $\frac{x^2}{4\pi^2}$

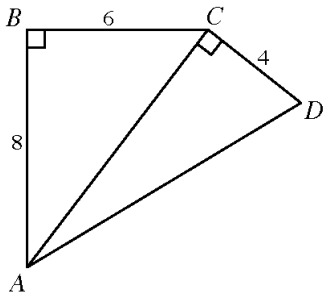
e. $\frac{x^2}{2\pi}$

____ 4. In the figure below, the radius of circle *B* is one third the radius of circle *A*. The shaded area is 128π. What is the length of $\overline{AB}$?



a. 10
b. 14
c. 8
d. 4
e. 12

____ 5. In the figure below, $\angle B$ and $\angle ACD$ are right angles. If $AB = 8$, $BC = 6$, and $CD = 4$, what is the length of *AD*?



a. 5
b. $2\sqrt{29}$
c. $2\sqrt{10}$
d. $\sqrt{6}$
e. 12

____ 6. The base of a suitcase is 22 inches long and 18 inches wide. If umbrellas come in integer lengths only, what is the longest umbrella that will fit flat on the base of the suitcase?

a. 31 inches
b. 28 inches
c. 32 inches
d. 30 inches
e. 29 inches

____ 7. Gabrielle can walk home around two sides of a rectangular park, or she can cut diagonally across the park. If the park is 160 feet by 240 feet, how much short is it for Gabrielle to cut across the park?

a. $\left(80\sqrt{13}-400\right)$ ft
b. $80\sqrt{13}$ ft
c. $\left(80-80\sqrt{13}\right)$ ft
d. 80 ft
e. $\left(400-80\sqrt{13}\right)$ ft