Name: _____ **Teacher:**_____ **Block:**_____

Titan Learning Center
Mathematics ACT Prep
Set A Week 3

Solve each problem, circling the correct answers. Remember that figures are not necessarily drawn to scale.

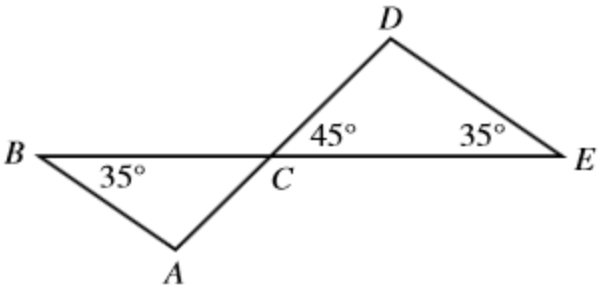
1. Students studying motion observed a cart rolling at a constant rate along a straight line. The table below gives the distance, d feet, the cart was from a reference point at 1-second intervals from $t = 0$ seconds to $t = 5$ seconds.

t	0	1	2	3	4	5
d	14	20	26	32	38	44

Which of the following equations represents this relationship between d and t ?

A. $d = t + 14$
B. $d = 6t + 8$
C. $d = 6t + 14$
D. $d = 14t + 6$
E. $d = 34t$

2. In the figure below, C is the intersection of $\overline{AD}$ and $\overline{BE}$. If it can be determined, what is the measure of $\angle BAC$?



A. 80°
B. 100°
C. 110°
D. 115°
E. Cannot be determined from the given information

3. If a, b, and c are positive integers such that $a^b = x$ and $c^b = y$, then $xy = ?$

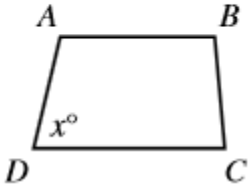
F. ac^b
G. ac^{2b}
H. $(ac)^b$
J. $(ac)^{2b}$
K. $(ac)^{b^2}$

4. This month, Kami sold 70 figurines in 2 sizes. The large figurines sold for \$12 each, and the small figurines sold for \$8 each. The amount of money he received from the sales of the large figurines was equal to the amount of money he received from the sales of the small figurines. How many large figurines did Kami sell this month?

A. 20
B. 28
C. 35
D. 42
E. 50

5. For trapezoid $ABCD$ shown below, $\overline{AB} \parallel \overline{DC}$, the measures of the interior angles are distinct, and the measure of $\angle D$ is $x°$. What is the degree measure of $\angle A$ in terms of x ?

F. $(180 - x)°$
G. $(180 - 0.5x)°$
H. $(180 + 0.5x)°$
J. $(180 + x)°$
K. $x°$



TLC Stamp