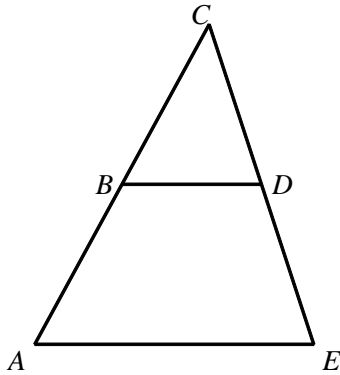


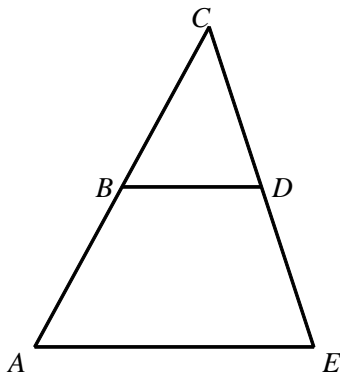
NAME: _____

1. Solve for x given $BD = \frac{5}{2}x + 3$ and $AE = 6x + 4$. Assume B is the midpoint of \overline{AC} and D is the midpoint of \overline{CE} .



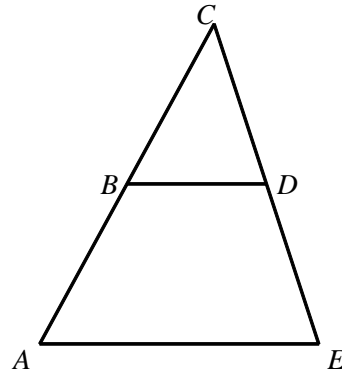
- [A] 2 [B] $\frac{2}{9}$ [C] $-\frac{1}{2}$ [D] $-\frac{9}{2}$

2. Solve for x given $BD = \frac{7}{2}x + 2$ and $AE = 3x + 6$. Assume B is the midpoint of \overline{AC} and D is the midpoint of \overline{CE} .

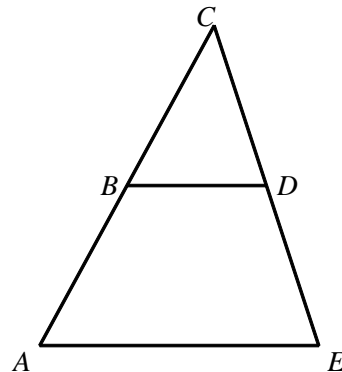


- [A] $\frac{7}{2}$ [B] $\frac{1}{2}$ [C] $-\frac{2}{7}$ [D] -2

3. Solve for x given $BD = 5x + 2$ and $AE = 9x + 6$. Assume B is the midpoint of \overline{AC} and D is the midpoint of \overline{CE} .

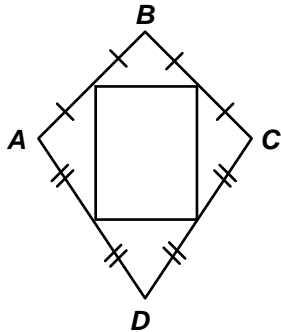


4. Solve for x given $BD = 4x + 2$ and $AE = 6x + 8$. Assume B is the midpoint of \overline{AC} and D is the midpoint of \overline{CE} .



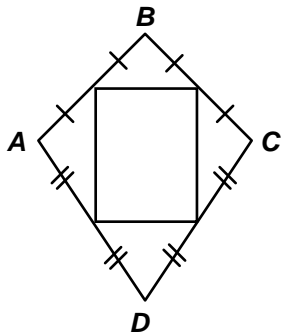
NAME: _____

5. Find the area of the rectangle if $\overline{AC} = 11$ and $\overline{BD} = 22$.



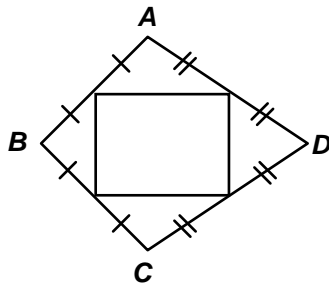
- [A] 121 [B] 33 [C] 242 [D] 60.5

6. Find the area of the rectangle if $\overline{AC} = 15$ and $\overline{BD} = 24$.

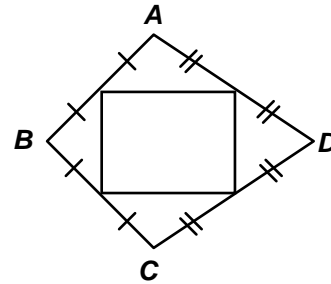


- [A] 39 [B] 360 [C] 180 [D] 90

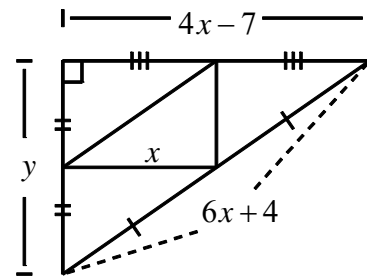
7. Find the area of the rectangle if $AC = 14$ and $BD = 30$.



8. Find the area of the rectangle if $AC = 16$ and $BD = 24$.



9. Find the values of x and y .



[A] $x = 3\frac{1}{2}$, $y = 25$

[B] $x = 3\frac{1}{2}$, $y = 12\frac{1}{2}$

[C] $x = 3\frac{1}{2}$, $y = 24$

[D] none of the above

10. The Great Pyramid near Cairo is one of history's most spectacular achievements. Its base covers an area large enough to hold 10 football fields. If the base of a pyramid is a square 400 m on a side, how long would a walkway that went around the entire pyramid halfway up be?

[1] A

[2] B

[3] 2

[4] 2

[5] D

[6] D

[7] 105

[8] 96

[9] C

[10] 800 m