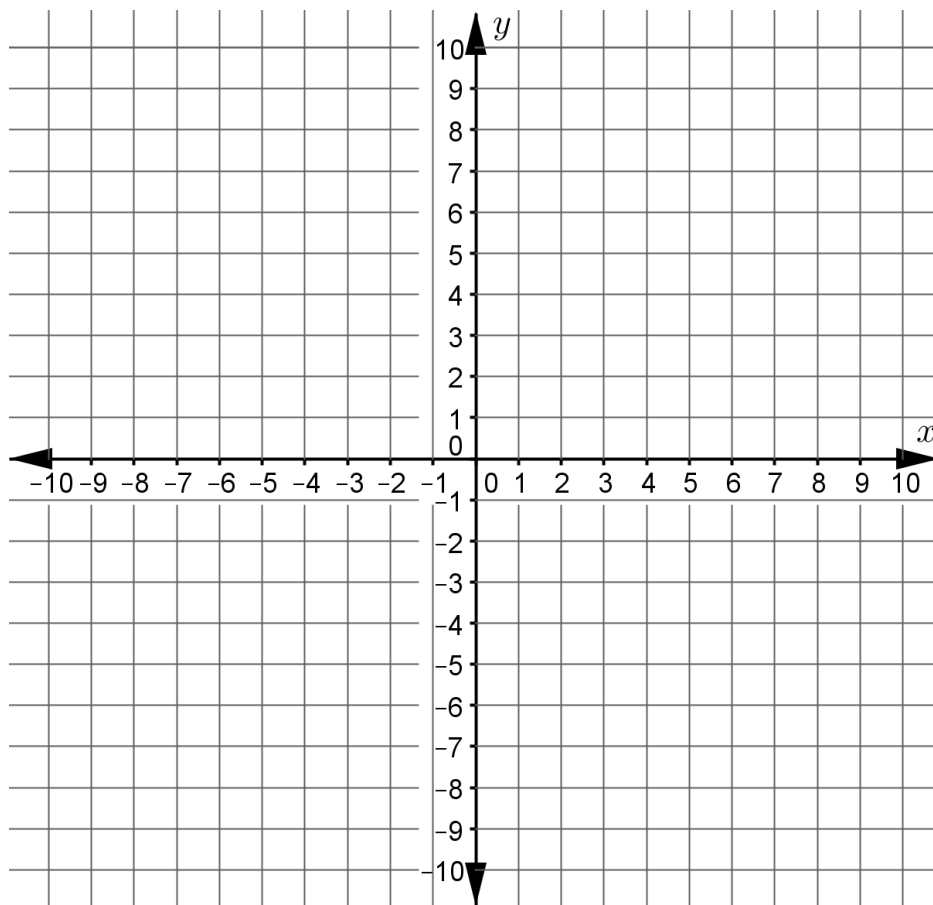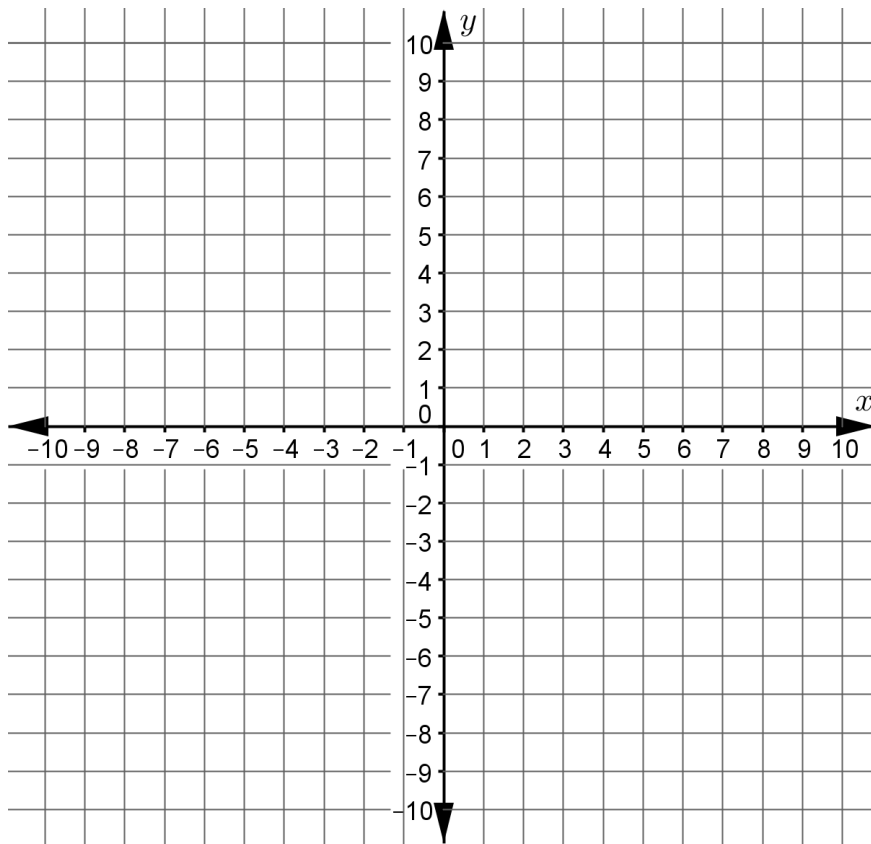Name _____ Date_____

Amelia is making a drawing to determine the length of a fence needed to go around her garden. Using the given coordinates, draw an outline of her garden (polygon *ABCDEF*) and determine the total length of fencing needed. Show all work neatly and completely to justify your answer.

A (6, 3)
B (6, -4)
C (-10, -4)
D (-10, 7)
E (-5, 7)
F (-5, 3)

Name _____ Date_____

Celine's teacher asked her to use a diagram to determine the area of a patio with vertices at $\left(-7, -2\frac{1}{2}\right), \left(2\frac{1}{2}, -2\frac{1}{2}\right), \left(2\frac{1}{2}, -5\frac{1}{2}\right)$, and $\left(-7, -5\frac{1}{2}\right)$ on a coordinate grid.

1. Graph the polygon.

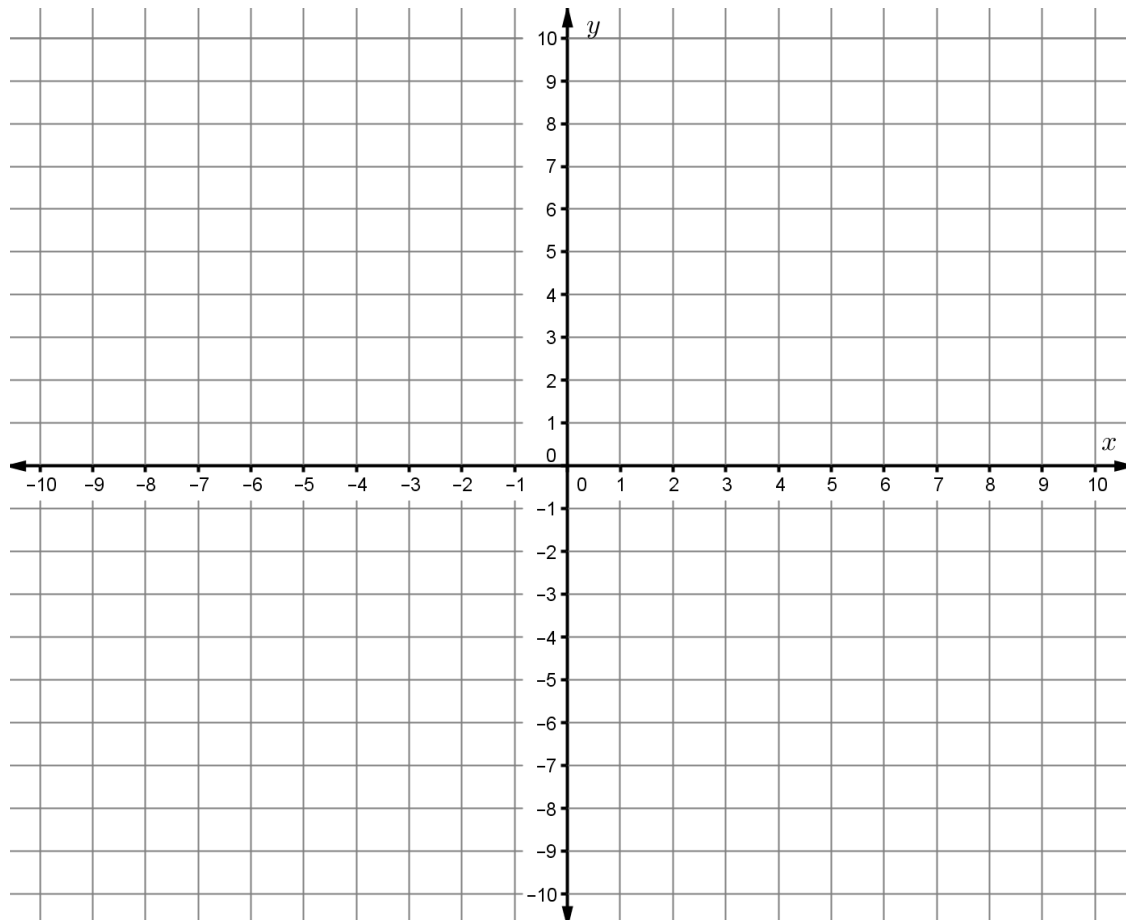2. Determine the area. Show your work neatly and completely to justify your answer.

Name _____ Date_____

The coordinates of the vertices of polgyon *EFGH* are:

E (-5.5, 4)   *F* (-2, 8.25)   *G* (2.5, 4)   *H* (-2, -7.75)

1. Graph the polygon and label the vertices.

2. Find the length of each diagonal ($\overline{EG}$ and $\overline{FH}$). Show your work clearly or explain how you found the lengths.