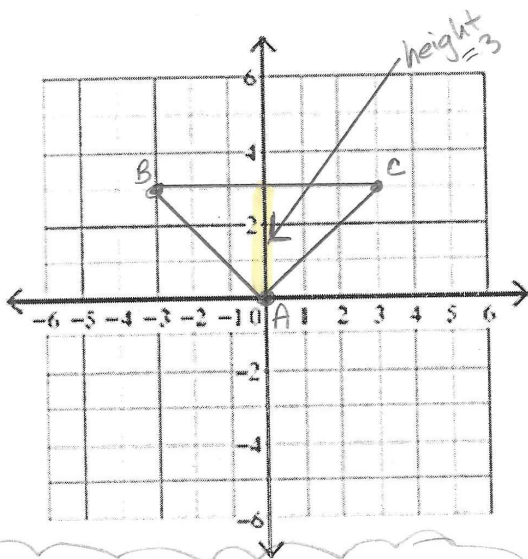


Plot coordinates and construct the figure. Name the figure, find lengths needed to solve for the perimeter & area of EACH figure. Round to two decimal places if needed.

$$\text{distance formula} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

1.



Note: use distance formula or count spaces when line is horizontal or vertical.

ISOSCELES TRIANGLE

Points: ^A(0, 0), ^B(-3, 3), & ^C(3, 3)

Perimeter: $4.24 + 6 + 4.24 \approx 14.48$ units

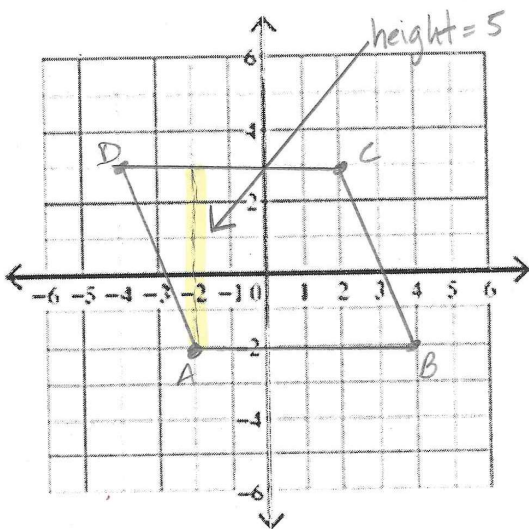
Area: $\frac{1}{2}bh = \frac{1}{2}(6)(3) = 9$ units²

$$AB = \sqrt{(-3-0)^2 + (3-0)^2} = \sqrt{9+9} = \sqrt{18} \approx 4.24$$

$$BC = 6$$

$$CA = \sqrt{(3-0)^2 + (3-0)^2} = \sqrt{9+9} = \sqrt{18} \approx 4.24$$

2.



PARALLELOGRAM

Points: ^A(-2, -2), ^B(4, -2), ^C(2, 3), & ^D(-4, 3)

Perimeter: $6 + 5.39 + 6 + 5.39 \approx 22.78$ units

Area: $b \cdot h = 6 \cdot 5 = 30$ units²

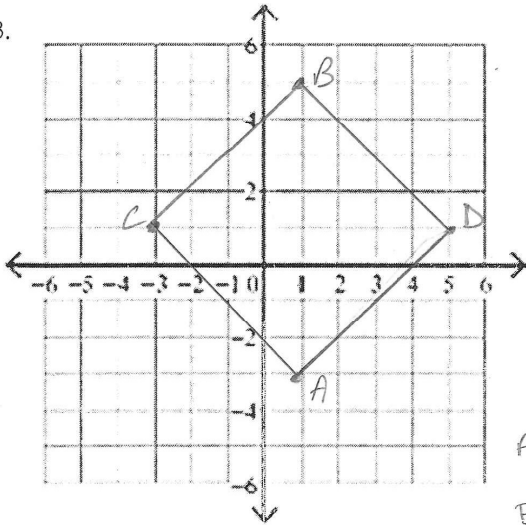
$$AB = 6$$

$$BC = \sqrt{(2-4)^2 + (3-2)^2} = \sqrt{4+1} = \sqrt{5} = 2.24$$

$$CD = 6$$

$$DA = \sqrt{(-4-2)^2 + (3-2)^2} = \sqrt{36+1} = \sqrt{37} = 6.08$$

3.

**SQUARE**

Points: ^A(1, -3), ^B(1, 5), ^C(-3, 1), & ^D(5, 1)

Perimeter: $4(5.66) \approx 22.64$ units

Area: $side^2 = (5.66)^2 = 32.04$ units²

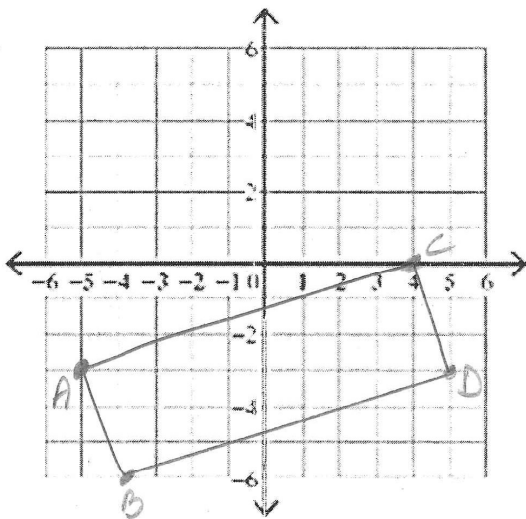
$$AD = \sqrt{(5-1)^2 + (1-(-3))^2} = \sqrt{16+16} = \sqrt{32} \approx 5.66$$

$$BD = \sqrt{(5-1)^2 + (1-5)^2} = \sqrt{16+16} = \sqrt{32} \approx 5.66$$

$$BC = \sqrt{(-3-1)^2 + (1-5)^2} = \sqrt{16+16} = \sqrt{32} \approx 5.66$$

$$CA = \sqrt{(-3-1)^2 + (1-(-3))^2} = \sqrt{16+16} = \sqrt{32} \approx 5.66$$

4.

**RECTANGLE**

Points: ^A(-5, -3), ^B(-4, -6), ^C(4, 0), & ^D(5, -3)

Perimeter: $3.16 + 9.49 + 3.16 + 9.49 \approx 25.3$ units

Area: $b \cdot h = (3.16)(9.49) \approx 29.99$ units²

$$AB = \sqrt{(-4-(-5))^2 + (-6-(-3))^2} = \sqrt{1+9} = \sqrt{10} \approx 3.16$$

$$BD = \sqrt{(5-(-4))^2 + (-3-(-6))^2} = \sqrt{81+9} = \sqrt{90} \approx 9.49$$

$$DC = \sqrt{(5-4)^2 + (-3-0)^2} = \sqrt{1+9} = \sqrt{10} \approx 3.16$$

$$AC = \sqrt{(4-(-5))^2 + (0-(-3))^2} = \sqrt{81+9} = \sqrt{90} \approx 9.49$$