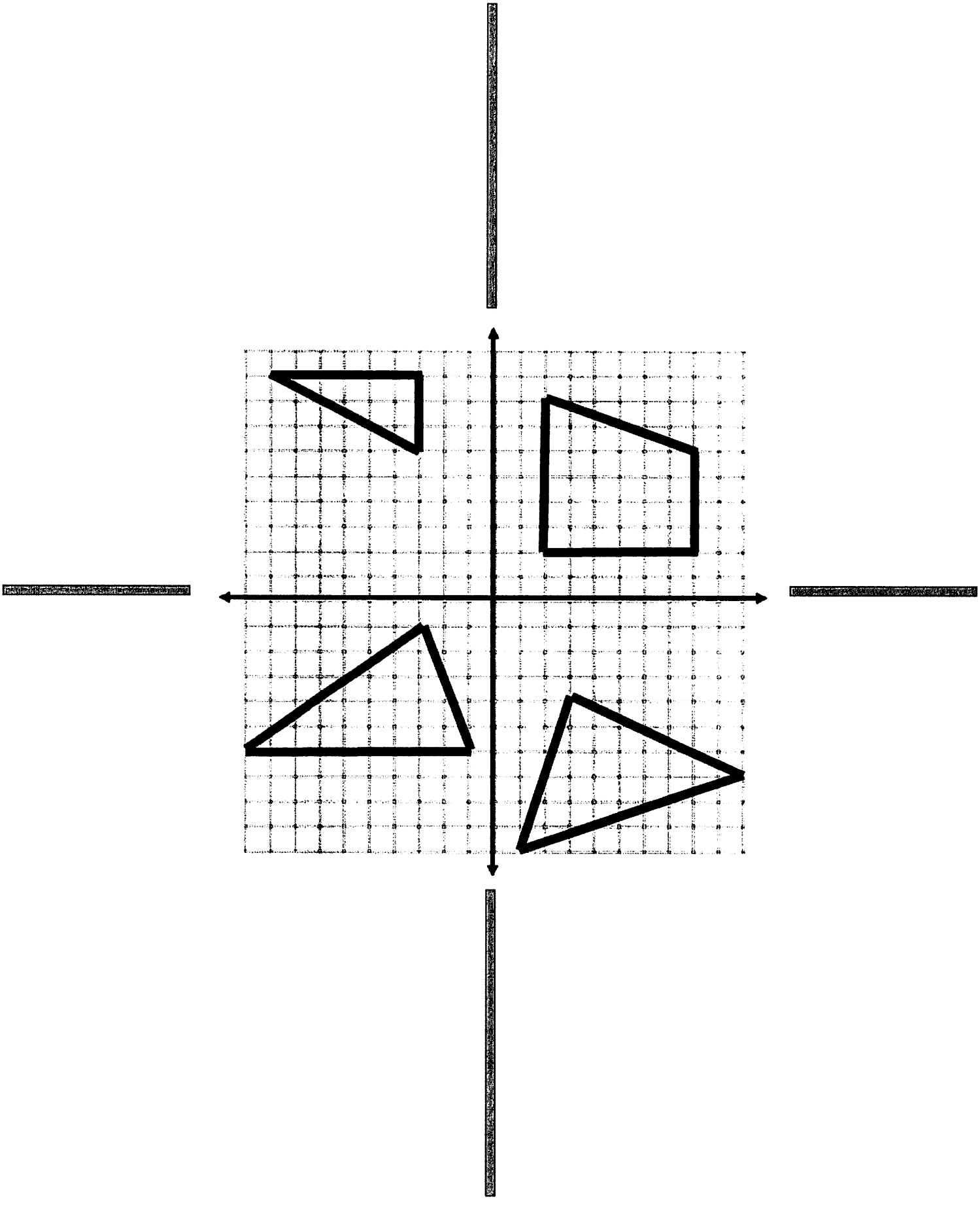
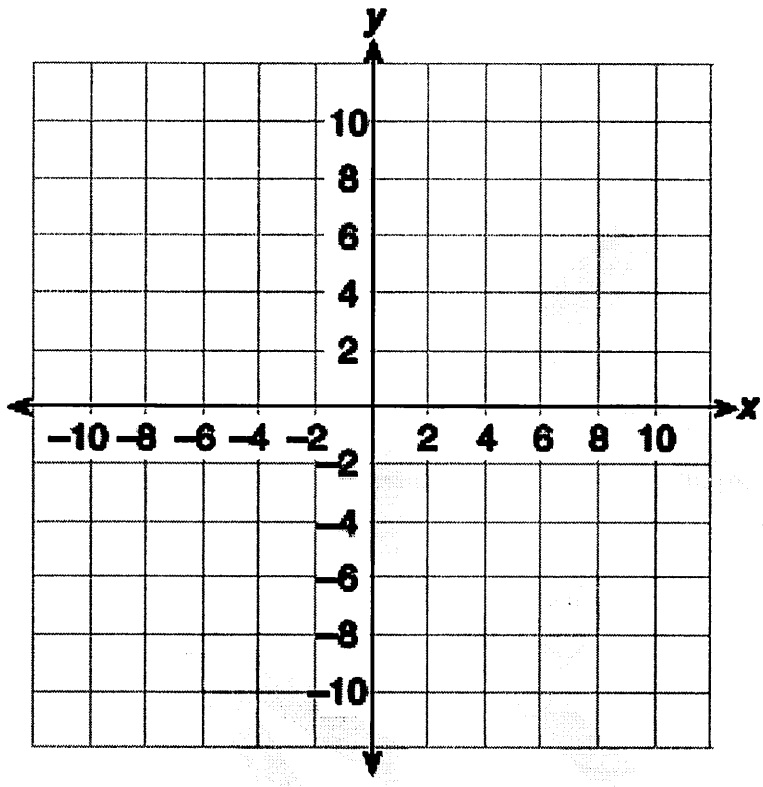
Perimeter and Area in the Coordinate Plane Name _____

Find the Area of Each Shape



2. Triangle *PQR* and triangle *QRS* have vertices *P*(–9,7), *Q*(4,7), *R*(4,–3), and *S*(10,–3).

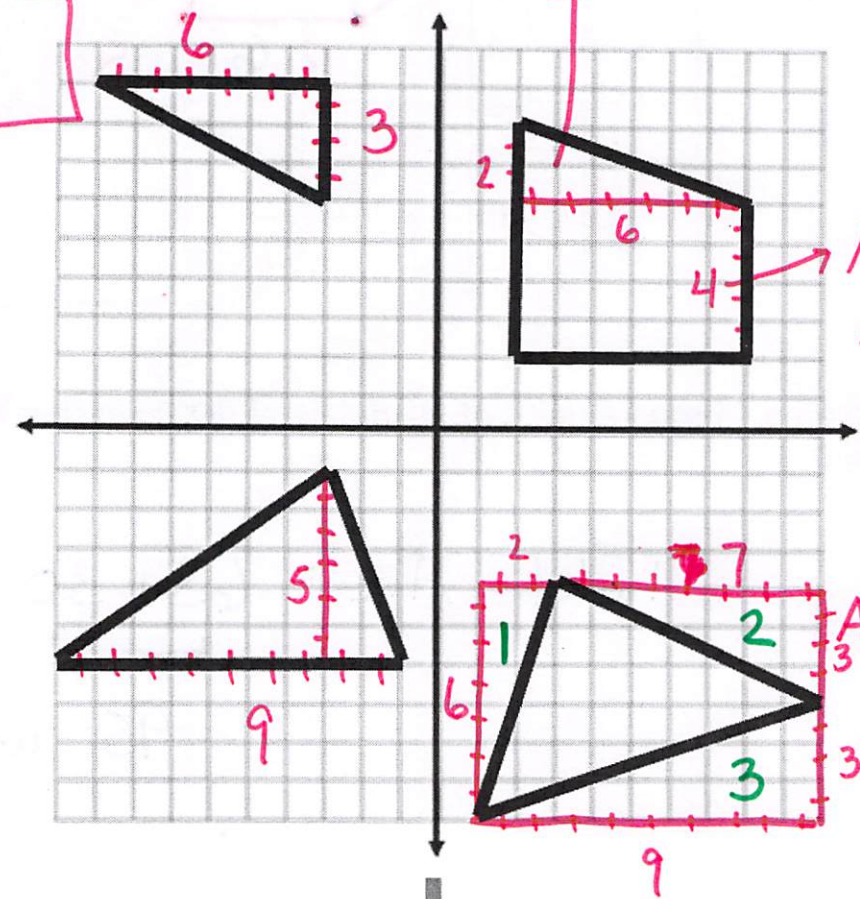


What is the area, in square units, of quadrilateral *PQSR* which is formed by the two triangles?

A 30
B 65
C 95
D 190

Perimeter and Area in the Coordinate Plane Name Key

Find the Area of Each Shape



$A = \frac{b \cdot h}{2}$

$A = \frac{6 \cdot 3}{2}$

$A = 9 \text{ units}^2$

$A = \frac{b \cdot h}{2}$

$A = \frac{6 \cdot 2}{2} = 6 \text{ units}^2$

$A = b \cdot h$

$A = 6 \cdot 4 = 24 \text{ units}^2$

$A = \frac{6 \cdot h}{2}$

$A = \frac{9 \cdot 5}{2}$

$A = 22.5 \text{ units}^2$

$A_{box}\ 6 \cdot 9 = 54$

$A_{\Delta 1} = \frac{6 \cdot 2}{2} = 6$

$A_{\Delta 2} = \frac{7 \cdot 3}{2} = 10.5$

$A_{\Delta 3}\ \frac{9 \cdot 3}{2} = 13.5$

Total Area

$6 + 24 = 30 \text{ units}^2$

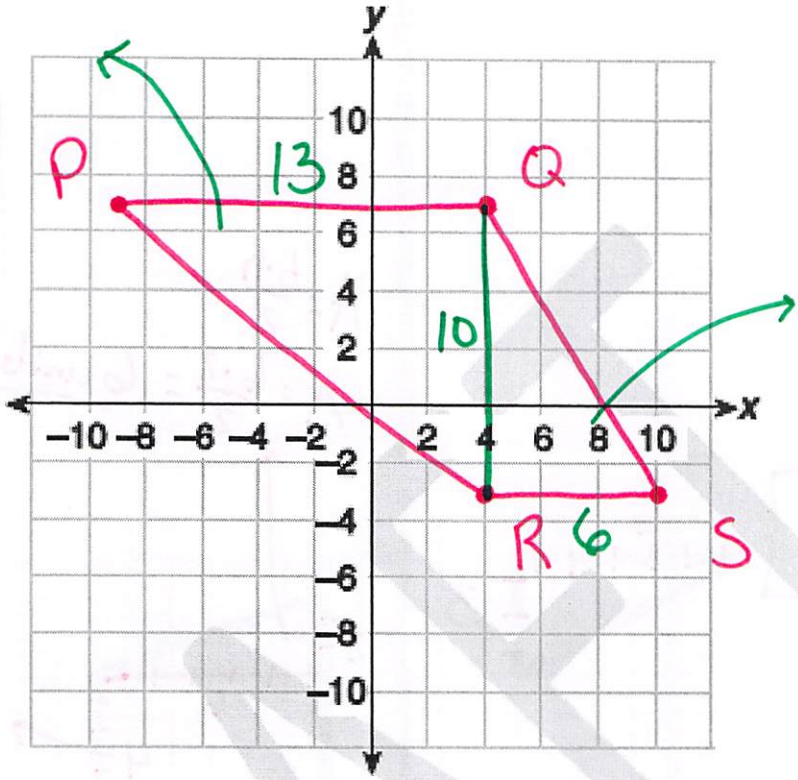
Area of Δ = $\begin{array}{r} \cancel{54} \\ 6 \\ 10.5 \\ -\ 13.5 \\ \hline 24 \text{ units}^2 \end{array}$

2. Triangle *PQR* and triangle *QRS* have vertices *P*(–9,7), *Q*(4,7), *R*(4,–3), and *S*(10,–3).

$A = \frac{b \cdot h}{2}$

$A = \frac{13 \cdot 10}{2}$

$A = 65 \text{ units}^2$



$A = \frac{b \cdot h}{2}$

$A = \frac{10 \cdot 6}{2}$

$A = 30 \text{ units}^2$

What is the area, in square units, of quadrilateral *PQSR* which is formed by the two triangles?

Total Area = 65 + 30

95 units²

A 30
B 65
C 95
D 190