

G2 Lines & Angles

Angles Review Sheet

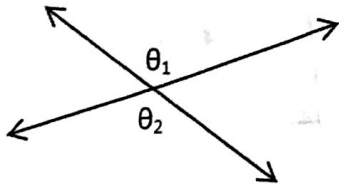
Name Key

Show all your work

For each figure below, find the angle type and relationship between θ_1 and θ_2 :

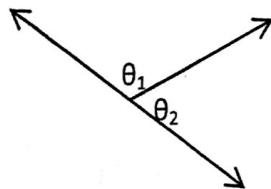
1. Type: Vertical

Relationship: congruent \cong



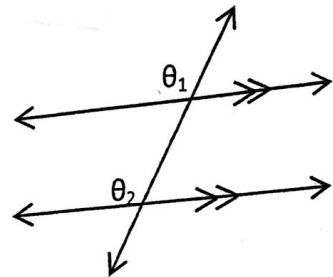
2. Type: Linear pair

Relationship: Supplementary 180°



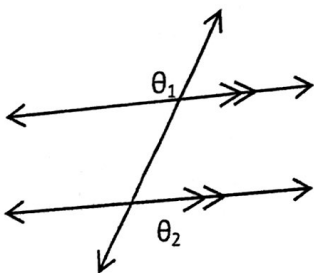
3. Type: Corresponding

Relationship: \cong



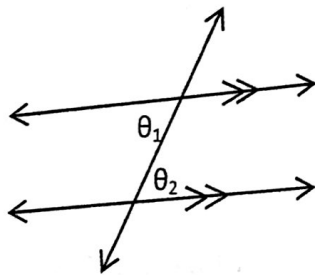
4. Type: Alternate Exterior

Relationship: \cong



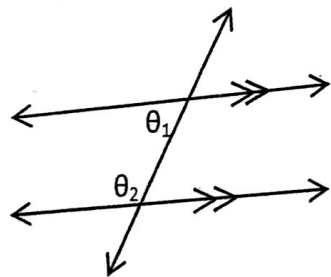
5. Type: Alternate Interior

Relationship: \cong



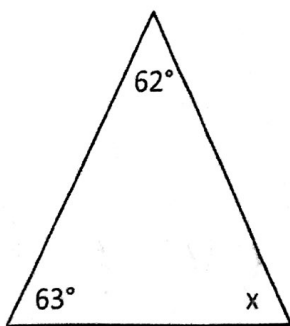
6. Type: Same-side Interior

Relationship: Supplementary 180°



For each figure below, find x . Round your answers to the nearest hundredth:

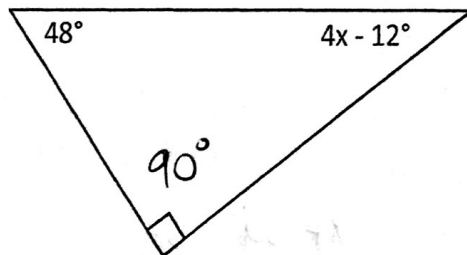
7. $x = \underline{55}$



$$62 + 63 + x = 180$$

$$\begin{array}{r} 125 + x = 180 \\ -125 \quad -125 \\ \hline x = 55 \end{array}$$

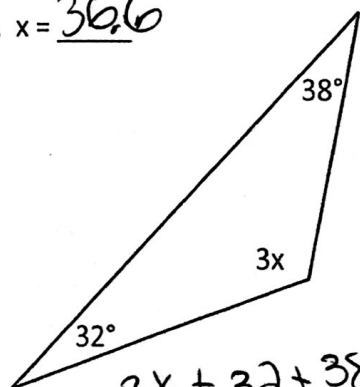
8. $x = \underline{11}$



$$90 + 48 + 4x - 12 = 180$$

$$\begin{array}{r} 4x + 136 = 180 \\ -136 \quad -136 \\ \hline 4x = 44 \\ \boxed{x = 11} \end{array}$$

9. $x = \underline{36.6}$



$$3x + 32 + 38 = 180$$

$$3x + 70 = 180$$

$$\begin{array}{r} 3x + 70 = 180 \\ -70 \quad -70 \\ \hline 3x = 110 \\ \underline{\quad 3} \\ x = 36.6 \end{array}$$

For each figure below, state the angle type and relationship and solve for x. Round your answers to the nearest hundredth:

1. Type: Vertical
 Relationship: congruent
 $x = 104$

$x + 9 = 113$
 $-9 \quad -9$

2. Type: Linear pair
 Relationship: Supplementary
 $x = 17.75$

$4x + 42$
 67

$4x + 42 + 67 = 180$
 $4x + 109 = 180$
 $-109 \quad -109$
 $4x = 71$
 $x = 17.75$

3. Type: Linear pair
 Relationship: Supplementary
 $x = 26.14$

$2x + 5x - 3 = 180$
 $7x - 3 = 180$
 $+3 \quad +3$
 $7x = 183$
 $\frac{7x}{7} = \frac{183}{7}$
 $x = 26.14$

$2x$
 $5x - 3$

4. Type: Same-side interior
 Relationship: Supplementary
 $x = 95$

$109 + x - 24 = 180$
 $x + 85 = 180$
 $-85 \quad -85$
 $x = 95$

109
 $x - 24$

5. Type: Corresponding
 Relationship: Congruent
 $x = 17.3$

$6x = 104$
 $\frac{6x}{6} = \frac{104}{6}$
 $x = 17.3$

$6x$
 104

6. Type: Alternate Exterior
 Relationship: congruent
 $x = 29.5$

$96 = 2x + 37$
 $-37 \quad -37$
 $59 = 2x$
 $\frac{59}{2} = \frac{2x}{2}$
 $29.5 = x$

96
 $2x + 37$

7. Type: Alternate Exterior
 Relationship: Congruent
 $x = 29.5$

8. Type: Alternate Interior
 Relationship: Congruent
 $x = 16$

$x + 32$
 $3x$

$x + 32 = 3x$
 $-x \quad -x$
 $32 = 2x$
 $\frac{32}{2} = \frac{2x}{2}$
 $16 = x$
 $x = 16$

9. Type: Alternate Exterior
 Relationship: Congruent
 $x = 2$

$x + 112$
 $4x + 106$

$x + 112 = 4x + 106$
 $-x \quad -x$
 $6 = 3x$
 $\frac{6}{3} = \frac{3x}{3}$
 $x = 2$

$4x + 28 = 146$
 $-28 \quad -28$
 $4x = 118$
 $x = 29.5$

$x + 32 = 3x$
 $-x \quad -x$
 $32 = 2x$
 $\frac{32}{2} = \frac{2x}{2}$
 $16 = x$
 $x = 16$

$x + 112 = 4x + 106$
 $-x \quad -x$
 $6 = 3x$
 $\frac{6}{3} = \frac{3x}{3}$
 $x = 2$