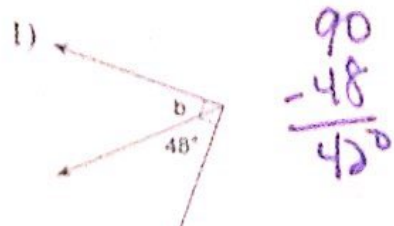



G2b: Line and Angle Properties Check in Quiz

C Level Problems:

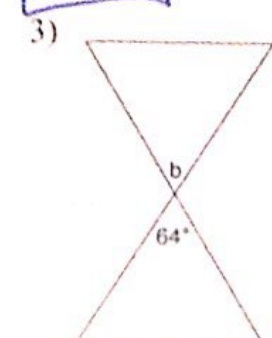
Find the measure of angle b.

1) 
$$\begin{array}{r} 90 \\ - 48 \\ \hline 42 \end{array}$$

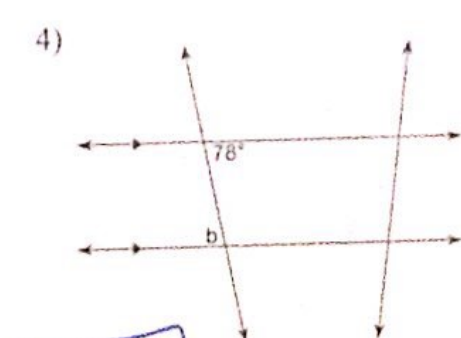
$$b = 42^\circ$$

2) 
$$180 - 154 = 26^\circ$$

$$b = 26^\circ$$

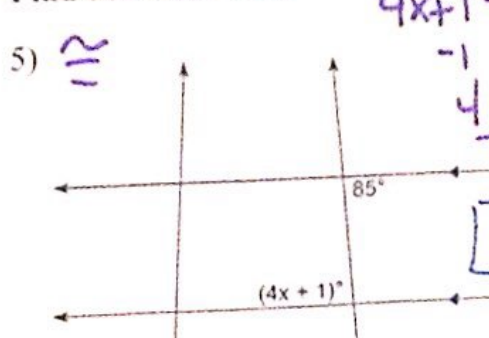
3)  Vertical angles are congruent

$$b = 64^\circ$$

4)  alt. interior angles are congruent

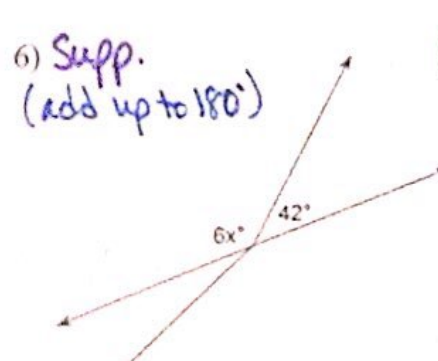
$$b = 78^\circ$$

Find the value of x.

5) 
$$4x + 1 = 85$$

$$\begin{array}{r} 4x + 1 = 85 \\ -1 \quad -1 \\ \hline 4x = 84 \\ \frac{4}{4} \quad \frac{4}{4} \\ \hline x = 21 \end{array}$$

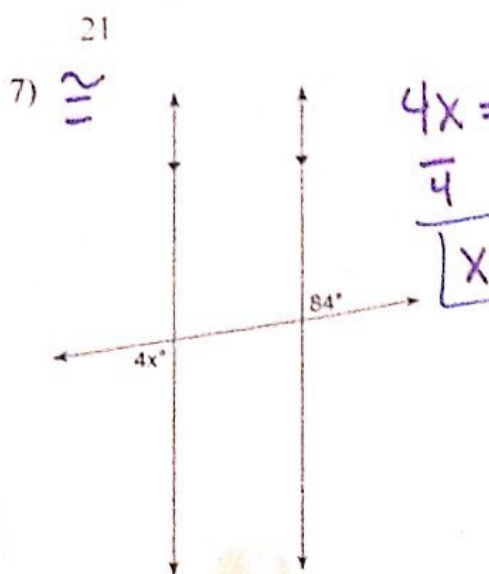
$$x = 21^\circ$$

6)  6) Supp. (add up to 180°)

$$6x + 42 = 180$$

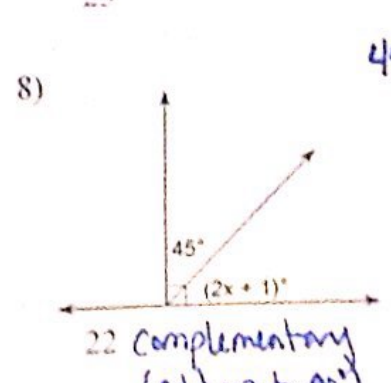
$$\begin{array}{r} 6x + 42 = 180 \\ -42 \quad -42 \\ \hline 6x = 138 \\ \frac{6}{6} \quad \frac{6}{6} \\ \hline x = 23 \end{array}$$

$$x = 23$$

7) 
$$4x = 84$$

$$\begin{array}{r} 4x = 84 \\ \frac{4}{4} \quad \frac{4}{4} \\ \hline x = 21 \end{array}$$

$$x = 21$$

8) 
$$45 + 2x + 1 = 90$$

$$2x + 46 = 90$$

$$\begin{array}{r} 2x + 46 = 90 \\ -46 \quad -46 \\ \hline 2x = 44 \\ \frac{2}{2} \quad \frac{2}{2} \\ \hline x = 22 \end{array}$$

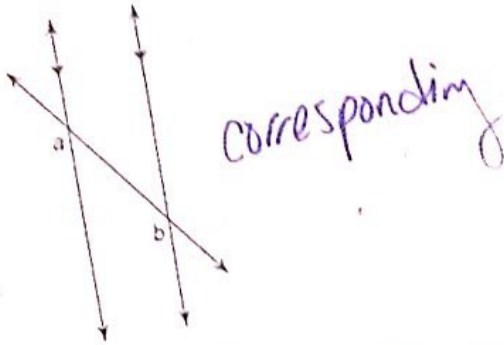
 22 Complementary (add up to 90°)

$$x = 22$$

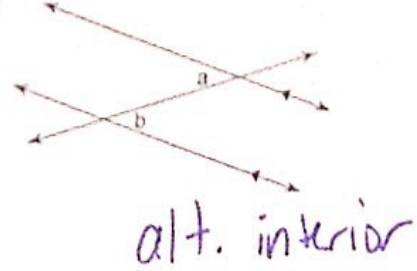
B Level Problems:

Name the relationship: complementary, linear pair, vertical, alternate interior, corresponding, same side interior, same side exterior, or alternate exterior.

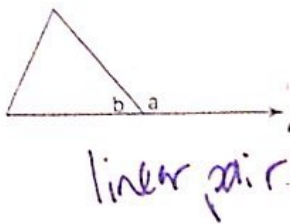
9)



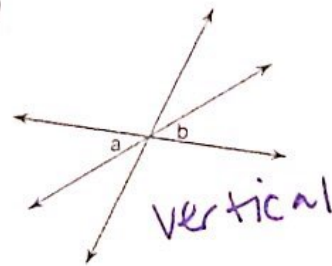
10)



11)

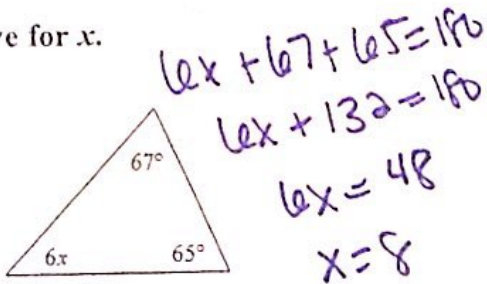


12)

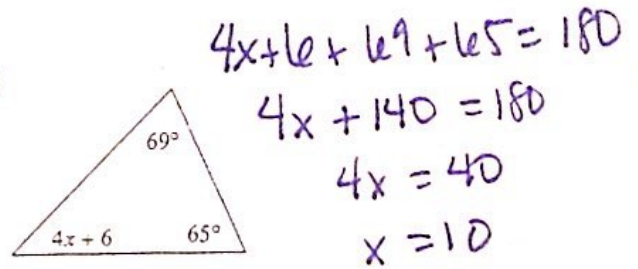


Solve for x.

13)

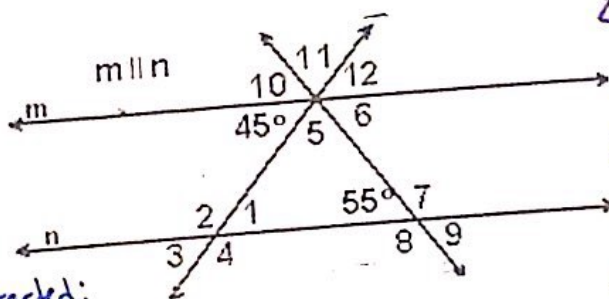


14)



Challenge Problem:

15) Label all angles.



- $\angle 1 = 45^\circ$
- $\angle 2 = 135^\circ$
- $\angle 3 = 45^\circ$
- $\angle 4 = 135^\circ$
- $\angle 5 = 80^\circ$
- $\angle 6 = 55^\circ$
- $\angle 7 = 125^\circ$
- $\angle 8 = 125^\circ$
- $\angle 9 = 55^\circ$
- $\angle 10 = 55^\circ$
- $\angle 11 = 80^\circ$
- $\angle 12 = 45^\circ$

How I started:

$\angle 1 \cong 45^\circ$ angle because they are alt. interior angles
 $\angle 5$ is 80° because $45^\circ + 55^\circ + 80^\circ = 180^\circ$

The rest were all found through linear pairs (supplementary) or vertical angles (congruent)