

1a.  $90 - 45 = 45^\circ$

c.  $90 - 88 = 2^\circ$

b.  $90 - 31 = 59^\circ$

d.  $90 - 24 = 66^\circ$

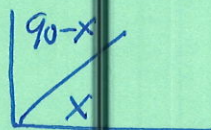
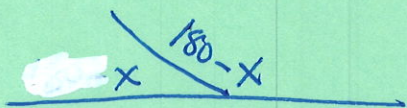
2a.  $180 - 132 = 48^\circ$

c.  $180 - 93 = 87^\circ$

b.  $180 - 26 = 154^\circ$

d.  $180 - x^\circ$

3.



$$180 - x = 2(90 - x) + 40$$

$$\begin{array}{r} \cancel{180} - x = \cancel{180} - 2x + 40 \\ + 2x \qquad \qquad + 2x \\ \hline \end{array}$$

$$x = 40$$

4. a.  $9y + 7 = 2y + 98$

$$7y = 91 \Rightarrow y = 13$$

angles =  $124^\circ$

b.  $4x + 7 + 35 = 90$

$$4x + 42 = 90$$

$$4x = 48$$

$$x = 12$$

angle  $4x + 7 = 55^\circ$

c.  $2x + 19 = 5x - 2$

$$-3x = -21$$

$$x = 7$$

angles =  $33^\circ$

d.  $5x + 55 = 2x + 100$

$$3x = 45$$

$$x = 15$$

$$2x + 100 = 130^\circ$$

$$\angle 2 = 50^\circ$$

5.  $a = 70^\circ$  vertical

$b = 45^\circ$   
Supplement

$c = 65^\circ$   
sum of angles

$d = 45^\circ$   
alt. int.

$e = 70^\circ$  corresponding

$f = 110^\circ$  supplement