

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

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

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

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

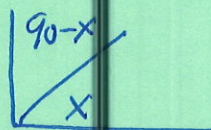
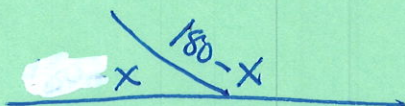
2a. $180 - 132 = 48^\circ$

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

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

d. $180 - x^\circ$

3.



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

$$\cancel{180} - x = \cancel{180} - 2x + 40$$

$$\begin{array}{r} +2x \\ \hline x = 40 \end{array}$$

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

$7y = 91 \Rightarrow y = 13$

angles = 124°

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°

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