1.

60%		5%		20%
x	$+$	$10-x$	$=$	10

$.6x + .05(10-x) = (.2)(10)$

$.6x + .5 - .05x = 2$

$.55x + .5 = 2$

$\underline{\quad -.5 \quad -.5 \quad}$
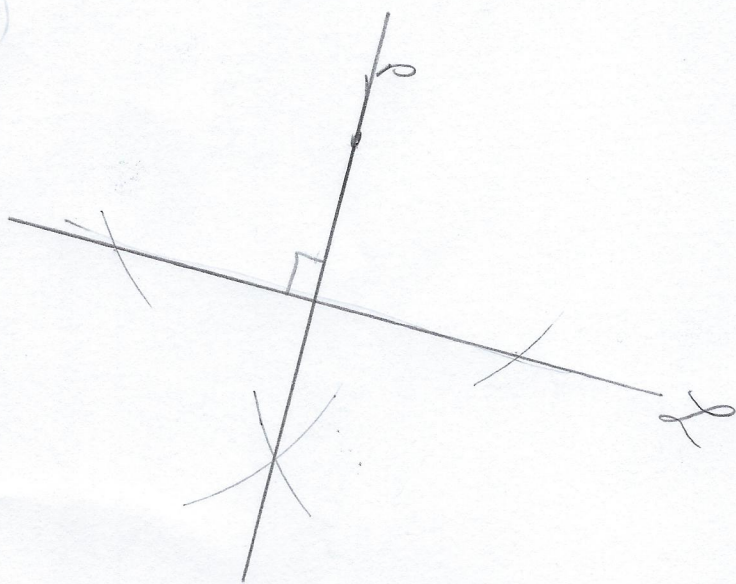
$.55x = 1.5$

$x = \dfrac{1.5}{.55} \approx 2.7$

So 2.7 L of 60% and 7.3 L of 5%

2. a) True

b) False you could have 5 dimes.

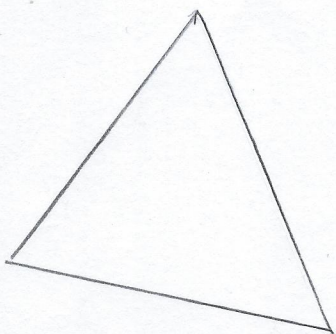c) False

has 4 equal sides and is not a square.

d)

3.

4.

$$2y + 8x + 4 = 8$$
$$ -8x -4 -4 -8x$$
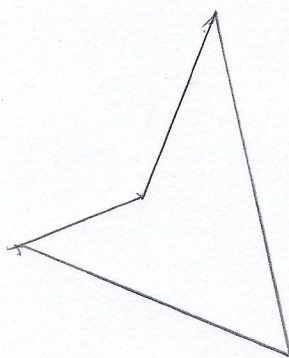
$$\frac{2y}{2} = \frac{4 - 8x}{2}$$

$$\boxed{y = 2 - 4x}$$

5. A convex polygon is a polygon all of whose interior angles are less than $180°$.
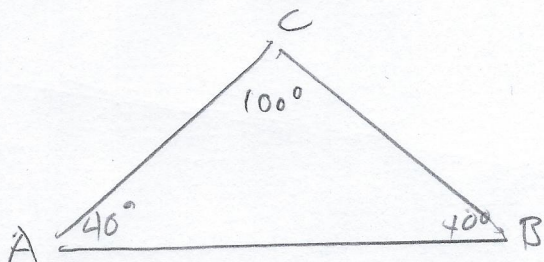
5.

6.

7. $\overline{AC}$ is the $\perp$ bisector of $\overline{BD}$ because

① A is equidistant from B & D
② C is equidistant from B & D

Thm 5-1 pg 126 tells us A, C lie on $\perp$ bisector of B & D.

8.

9. a) $m\angle C = 90°$

b) $m\angle A = \frac{48}{2} = 24°$

$m\angle B = \frac{180-48}{2} = \frac{132}{2} = 66°$
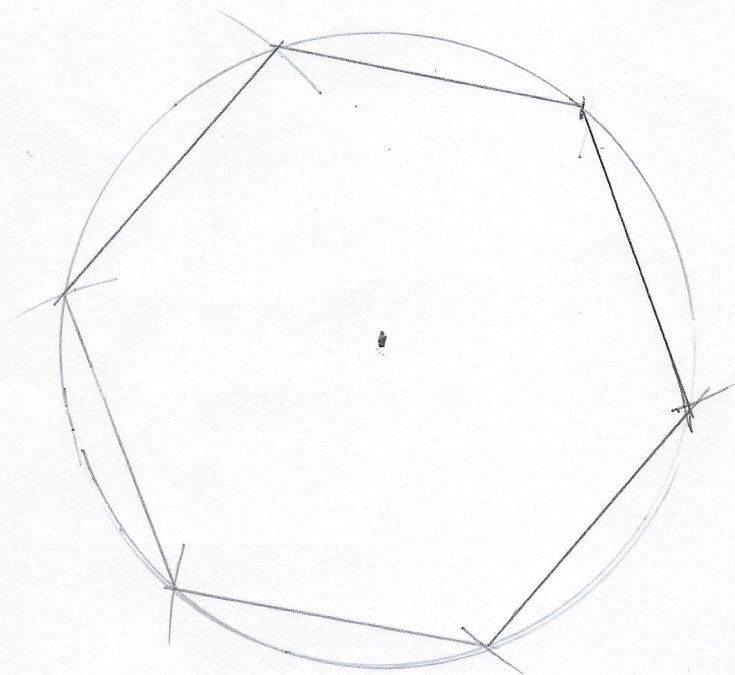
10. $\frac{(n-2)180}{180} = \frac{1440}{180}$

$n-2 = 8$

$\frac{+2 \quad +2}{n=10}$

11.

12. $(n-2)180 = n \cdot 174$

$180n - 360 = 174n$

$\frac{-174n + 360 \quad\quad -174n + 360}{6n = 360}$

$n = 60$