Distributive Property and Solving Equations

Solve for x. Show all your work/steps!!

1.) $6(5x + 8) = 168$

$30x + 48 = 168$
$-48 \quad -48$
$\frac{30x}{30} = \frac{120}{30}$
$x = 4$

2.) $3(6x - 10) = 114$

$18x - 30 = 114$
$+30 \quad +30$
$\frac{18x}{18} = \frac{144}{18}$
$x = 8$

3.) $5(2x + 2) = 110$

$10x + 10 = 110$
$-10 \quad -10$
$\frac{10x}{10} = \frac{100}{10}$
$x = 10$

4.) $-5(3 + 7x) = 405$

$-15 + -35x = 405$
$+15 \quad +15$
$\frac{-35x}{-35} = \frac{420}{-35}$
$x = -12$

5.) $3(5x + 7) = 96$

$15x + 21 = 96$
$-21 \quad -21$
$\frac{15x}{15} = \frac{75}{15}$
$x = 5$

6.) $5(7x + 8) = 5$

$35x + 40 = 5$
$-40 \quad -40$
$\frac{35x}{35} = \frac{-35}{35}$
$x = -1$

7.) $2(6 - 2x) = -16$

$12 - 4x = -16$
$-12 \quad -12$
$\frac{-4x}{-4} = \frac{-28}{-4}$
$x = 7$

8.) $-4(2x + 9) = -124$

$-8x - 36 = -124$
$+36 \quad +36$
$\frac{-8x}{-8} = \frac{-88}{-8}$
$x = 11$

9.) $-7(5 + x) = -56$

$-35 - 7x = -56$
$+35 \quad +35$
$\frac{-7x}{-7} = \frac{-21}{-7}$
$x = 3$

10.) $-6(5 + 7x) = -156$

$-30 - 42x = -156$
$+30 \quad +30$
$\frac{-42x}{-42} = \frac{-126}{-42}$
$x = 3$

11.) $3(4 + 2x) = 12$

$12 + 6x = 12$
$-12 \quad -12$
$\frac{6x}{6} = \frac{0}{6}$
$x = 0$

12.) $7(1x - 1) = 7$

$7x - 7 = 7$
$+7 \quad +7$
$\frac{7x}{7} = \frac{14}{7}$
$x = 2$