#5

$$3.2x + x = 84$$
$$4.2x = 84$$
$$\frac{4.2x}{4.2} = \frac{84}{4.2}$$

$$\boxed{x = 20}$$

$$43\overline{)840}$$

#6

$$2 - 0.1(x-4) = 4.2x + 1.5$$

$$2 - 0.1x + 0.4 = 4.2x + 1.5$$

$$-0.1x + 2.4 = 4.2x + 1.5$$

$$2.4 - 1.5 = 4.2x + 0.1x$$

$$0.9 = 4.3x$$

$$\frac{0.9}{4.3} = \frac{4.3}{4.3}x$$

$$x = \frac{0.9}{4.3}$$

$$\boxed{x = \frac{9}{43}}$$

#7

$$7(x-2) + 3x = 8$$
$$7x - 14 + 3x = 8$$
$$10x - 14 = 8$$
$$10x = 8 + 14$$
$$10x = 22$$
$$\frac{10x}{10} = \frac{22}{10}$$
$$x = \frac{11}{5} \quad \text{CONDITIONAL}$$

#8

$$9(x-2) - 6x = 3x + 8$$
$$9x - 18 - 6x = 3x + 8$$
$$3x - 18 = 3x + 8$$
$$3x - 3x = 8 + 18$$
$$0 = 26$$
$$\text{NO SOL.}$$
$$\text{"CONTRADICTION"}$$

#9

$$5(x-2) - 3 = 5(x+1) - 18$$
$$5x - 10 - 3 = 5x + 5 - 18$$
$$5x - 13 = 5x - 13$$
$$5x - 5x = -13 + 13$$
$$0 = 0$$
$$\text{IDENTITY}$$