Berechne den Wert der Variable x

1) $3x - 5 = 4$ $|+5$
$\Rightarrow 3x = 9$ $|:3$
$\Rightarrow x = 3$

2) $4x + 4 = 2x + 8$ $|-2x$
$\Rightarrow 2x + 4 = 8$ $|-4$
$\Rightarrow 2x = 4$ $|:2$
$\Rightarrow x = 2$

3) $8x + 6 = 6x + 6$ $|-6x$
$\Rightarrow 2x + 6 = 6$ $|-6$
$\Rightarrow 2x = 0$ $|:2$
$\Rightarrow x = 0$

4) $6x - 2 = 3x + 5$ $|-3x$
$\Rightarrow 3x - 2 = 5$ $|+2$
$\Rightarrow 3x = 7$ $|:3$
$\Rightarrow x = \dfrac{7}{3}$

5) $\frac{1}{2} + \frac{4}{5}x = \frac{3}{2}x + 7$ $\left|-\frac{3}{2}x\right.$
$\Rightarrow \frac{1}{2} - \frac{7}{10}x = 7$ $\left|-\frac{1}{2}\right.$
$\Rightarrow -\frac{7}{10}x = \frac{13}{2}$ $\left|:\left(-\frac{7}{10}\right)\right.$
$\Rightarrow x = -\dfrac{65}{7}$

6) $3x - 7 = \frac{1}{2}x + a$ $\left|-\frac{1}{2}x\right.$
$\Rightarrow \frac{5}{2}x - 7 = a$ $|+7$
$\Rightarrow \frac{5}{2}x = a + 7$ $\left|:\frac{5}{2}\right.$
$\Rightarrow x = \dfrac{2(a + 7)}{5}$