

Mathématique Appliquée et Pré-Calcul 20S
Revue : Algèbre

Nom : _____

Date : _____

1) $-20 = -4x - 6x$

$$\frac{-20}{-10} = \frac{-10x}{-10} \quad \boxed{x = 2}$$

3) $8x - 2 = -9 + 7x$

$$\begin{array}{r} -7x + 2 + 2 - 7x \\ \hline x = -7 \end{array}$$

5) $4m - 4 = 4m + 4$

$$\begin{array}{r} -4m - 4 - 4m \\ \hline 0 = 4 \end{array} \quad \boxed{\text{aucune solution}}$$

7) $5p - 14 = 8p + 4$

$$\begin{array}{r} -5p - 4 - 5p - 4 \\ \hline -18 = 3p \\ \frac{-18}{3} = \frac{3p}{3} \end{array} \quad \boxed{p = -6}$$

9) $-8 = -(x + 4)$

$$\begin{array}{r} 8 = x + 4 \\ -4 \quad -4 \\ \hline 4 = x \end{array} \quad \boxed{x = 4}$$

11) $14 = -(p - 8)$

$$\begin{array}{r} -14 = p - 8 \\ +8 \quad +8 \\ \hline p = -6 \end{array} \quad \boxed{p = -6}$$

13) $\frac{-18}{6} - \frac{6k}{6} = \frac{6(1 + 3k)}{6}$

$$\begin{array}{r} -3 - k = 1 + 3k \\ -1 + k \quad -1 + k \\ \hline -4 = 4k \\ \frac{-4}{4} = \frac{4k}{4} \end{array} \quad \boxed{k = -1}$$

2) $6 = 1 - 2n + 5$

$$\begin{array}{r} 6 = 6 - 2n \\ -6 \quad -6 \\ \hline 0 = -2n \\ \frac{0}{-2} = \frac{-2n}{-2} \end{array} \quad \boxed{n = 0}$$

4) $a + 5 = -5a + 5$

$$\begin{array}{r} +5a \quad -5 \\ \hline 6a = 0 \\ \frac{6a}{6} = \frac{0}{6} \end{array} \quad \boxed{a = 0}$$

6) $p - 1 = 5p + 3p - 8$

$$\begin{array}{r} p - 1 = 8p - 8 \\ -p + 8 \quad -p + 8 \\ \hline 7 = 7p \\ \frac{7}{7} = \frac{7p}{7} \end{array} \quad \boxed{p = 1}$$

8) $p - 4 = -9 + p$

$$\begin{array}{r} -p + 4 \quad -p \\ \hline 0 = -5 \end{array} \quad \boxed{\text{aucune solution}}$$

10) $12 = -4(-6x - 3)$

$$\begin{array}{r} -4 \quad -4 \\ \hline -3 = -6x - 3 \\ +3 \quad +3 \\ \hline 0 = -6x \\ \frac{0}{-6} = \frac{-6x}{-6} \end{array} \quad \boxed{x = 0}$$

12) $-(7 - 4x) = 9$

$$\begin{array}{r} -7 + 4x = 9 \\ -7 \quad -7 \\ \hline 4x = 16 \\ \frac{4x}{4} = \frac{16}{4} \end{array} \quad \boxed{x = 4}$$

14) $5n + 34 = -2(1 - 7n)$

$$\begin{array}{r} 5n + 34 = -2 + 14n \\ -5n + 2 \quad -5n \\ \hline 36 = 9n \\ \frac{36}{9} = \frac{9n}{9} \end{array} \quad \boxed{n = 4}$$

$$15) \frac{2(4x-3)-8}{2} = \frac{4+2x}{2}$$

$$4x-3-4=2+x$$

$$4x-7=2+x$$

$$\frac{3x}{3} = \frac{9}{3} \quad \boxed{x=3}$$

$$16) 3n-5=-8(6+5n)$$

$$3n-5=-48-40n$$

$$\frac{43n}{43} = \frac{-43}{43} \quad \boxed{n=-1}$$

$$17) -(1+7x)-6(-7-x)=36$$

$$-1-7x+42+6x=36$$

$$41-x=36$$

$$\boxed{5=x}$$

$$19) 24a-22=-4(1-6a)$$

$$24a-22=-4+24a$$

$$0=18$$

aucune
solution

$$18) -3(4x+3)+4(6x+1)=43$$

$$-12x-9+24x+4=43$$

$$12x-5=43$$

$$\frac{12x}{12} = \frac{48}{12}$$

$$20) -5(1-5x)+5(-8x-2)=-4x-8x$$

$$-5+25x-40x-10=-12x$$

$$-15-15x=-12x$$

$$+15x \quad +15x$$

$$\frac{-15}{3} = \frac{3x}{3}$$

$$\boxed{-5=x}$$