

Name:

ZPP Homework

(#1-6) Solve the following equations by factoring.

1) $(4p-7)(p+5)=0$

$$\begin{array}{l} \downarrow \quad \downarrow \\ 4p-7=0 \quad p+5=0 \\ \hline p = \frac{7}{4} \text{ OR } p = -5 \end{array}$$

2) $b^2-11b+24=0$

$$\begin{array}{l} b^2-11b+24=0 \\ (b-8)(b-3)=0 \\ \downarrow \quad \downarrow \\ b-8=0 \quad b-3=0 \\ \hline b = 8 \text{ OR } b = 3 \end{array}$$

3) $9x^2-12x=0$

$$\begin{array}{l} 9x^2-12x=0 \\ 3x(3x-4)=0 \\ \downarrow \quad \downarrow \\ 3x-0 \quad 3x-4=0 \\ \hline x=0 \text{ OR } x = \frac{4}{3} \end{array}$$

4) $4x^2+11x+6=0$

$$\begin{array}{l} 4x^2+11x+6=0 \\ (4x+3)(x+2)=0 \\ \downarrow \quad \downarrow \\ 4x+3=0 \quad x+2=0 \\ \hline x = -\frac{3}{4} \text{ OR } x = -2 \end{array}$$

5) $15x^3-13x^2+2x=0$

$$\begin{array}{l} x(15x^2-13x+2)=0 \\ x(x-1)(3x-2)=0 \\ \downarrow \quad \downarrow \quad \downarrow \\ 5x-1=0 \quad 3x-2=0 \\ \hline x=0 \text{ OR } x = \frac{1}{5} \text{ OR } x = \frac{2}{3} \end{array}$$

6) $x^2+7x+12=0$

$$\begin{array}{l} 0 = x^2 + 7x + 12 \\ 0 = (x+4)(x+3) \\ \downarrow \quad \downarrow \\ x+4=0 \quad x+3=0 \\ \hline x = -4 \text{ OR } x = -3 \end{array}$$

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