

H/W Review: p. 596

$$\textcircled{13} -2h^2 + 5h + 3 = -1(h-3)(2h+1)$$
$$-1(2h^2 - 5h - 3)$$

$$\frac{2h^2}{h, 2h}$$

$$\frac{-3}{-1, 3}$$
$$1, -3$$

possibilities

$$(h-1)(2h+3)$$

$$(h+3)(2h-1)$$

$$(h+1)(2h-3)$$

$$(h-3)(2h+1)$$

middle

$$h$$

$$5h$$

$$-h$$

$$-5h$$

$$\textcircled{31} \quad p(3p+14) = 5$$

$$3p^2 + 14p = 5$$

$$3p^2 + 14p - 5 = 0$$

$$\begin{array}{r} 3p^2 \\ \hline p, 3p \end{array}$$

$$\begin{array}{r} -5 \\ \hline 1, -5 \\ -1, 5 \end{array}$$

$$\begin{array}{l} \text{poss.} \\ (p+1)(3p-5) \\ (p-5)(3p+1) \\ (p-1)(3p+5) \\ \boxed{(p+5)(3p-1)} \end{array}$$

$$\begin{array}{r} \text{middle} \\ \hline -2p \\ -14p \\ 2p \\ 14p \end{array}$$

$$p+5=0$$

$$3p-1=0$$

$$p = -5$$

or

$$p = \frac{1}{3}$$

$$(35) \quad 6r^2 - 15r = 99$$

$$\textcircled{-15r}$$

$$6r^2 - 15r - 99 = 0$$

<u>$6r^2$</u>	<u>-99</u>	<u>poss.</u>	<u>middle</u>
$\rightarrow r, 6r$	$-1, 99 \times$		
$2r, 3r$	$\rightarrow -3, 33$	$(r+3)(6r-33)$	$-15r$
	$-9, 11$		
	$9, -11$	$(2r-11)(3r+9)$	$-15r$
	$\rightarrow 3, -33$		
	$1, -99 \times$		

$$r+3=0$$

$$\boxed{r=-3}$$

$$6r-33=0$$

$$\boxed{r=\frac{33}{6}=\frac{11}{2}}$$

$$2r-11=0$$

$$2r=11$$

$$\boxed{r=\frac{11}{2}}$$

$$3r+9=0$$

$$3r=-9$$

$$\boxed{r=-3}$$

$$\textcircled{4} -x^2 + x + 20$$

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

$$\begin{array}{r} x^2 \\ \hline x, x \end{array}$$

$$\begin{array}{r} -20 \\ \hline -1, 20 \\ -2, 10 \\ -4, 5 \\ 4, -5 \\ 2, -10 \\ 1, -20 \end{array}$$

$$\begin{array}{c} \text{poss} \\ (x-4)(x+5) \\ (x-5)(x+4) \end{array}$$

$$\begin{array}{r} \text{middle} \\ \hline x \\ -x \end{array}$$

POP QUIZ

p. 599, #1, 9, 13 (factor)
19, 23 (solve)

Homework:

Complete Factoring W.S.
and Factoring practice