Solve each equation by factoring.

8) $6m^2 = 150$

$\frac{6m^2}{6} - \frac{150}{6} = 0$

$6(m^2 - 25) = 0$

$6(m+5)(m-5) = 0$

either $m+5=0$ or $m-5=0$

$m=-5$ $m=5$

$\{-5, 5\}$

$X \quad -25$

$+ \quad 0$

Solve each equation by factoring.

5) $p^2 + 12 = 7p$

$p^2 - 7p + 12 = 0$

$(p-3)(p-4) = 0$

$\times 12$

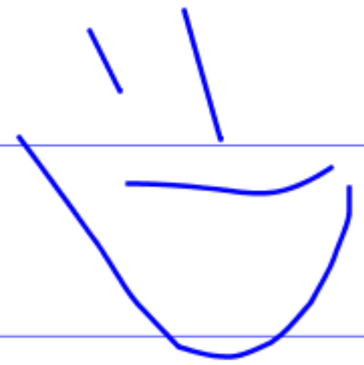
-7

$-3, -4$

either $p-3=0$ or $p-4=0$

$p=3$ or $p=4$

$\{3, 4\}$



Solve each equation by factoring.

6) $x^2 - 42 = x$

$x^2 - x - 42 = 0$

$(x-7)(x+6) = 0$

either $x - 7 = 0$ or $x + 6 = 0$

$x = 7$ or $x = -6$

$\{7, -6\}$

Solve each equation by factoring.

9) $r^2 - 16 = 0$

the Difference of squares.

$(r-4)(r+4)=0$

either $r-4=0$ or $r+4=0$

$r=4$ or $r=-4$

$SS\{4, -4\}$

Solve each equation by factoring.

Simple trinomial factoring

10) $x^2 - 7x = -12$

$x^2 - 7x + 12 = 0$

$\times 12$
$+ -7$

$(x-4)(x-3)=0$

$-4, -3$

either $x=4$ or $x=3$

$S = \{4, 3\}$

Solve each equation by factoring.

11) $5n^2 = -20n$

+20 +20

Factor out the common factor.

$5n^2 + 20n = 0$

$\frac{5n}{5n}$ $\frac{}{5n}$

$(5n)(n+4)=0$

either $\frac{5n=0}{5\ \ 5}$ or $n+4=0$

$n=0$ or $n=-4$

$\{0, -4\}$

Solve each equation by factoring.

12) $7b^2 + 392 = 105b$

$-105b \quad -105b$

① Find the common factor
② Factor trinomial

$7b^2 - 105b + 392 = 0$

$\frac{7}{7} \quad \frac{105}{7} \quad \frac{392}{7}$

$= 7(b^2 - 15b + 56) = 0$

$= 7(b-8)(b-7) = 0$

$X56$

-15

$-8, -7$

either $b-8=0$ or $b-7=0$

$b=8$ $\quad b=7$

Solve each equation by factoring.

13) $r^2 + 8 = -6r$

$r^2 + 6r + 8 = 0$ ✓

(x) 8 (+) 6 (4, 2)

$(r + 4)(r + 2) = 0$

Either $r + 4 = 0$ or ✓ $r + 2 = 0$

$r = -4$ or $r = -2$

$S = \{-4, -2\}$ ✓

Solve each equation by factoring.

14) $x^2 + 9x = -8$

$x^2 + 9x + 8 = 0$ ✓

$(x + 8)(x + 1)$ ✓

Either $x + 8 = 0$ or $x + 1 = 0$

$x = -8$ or $x = -1$

$SS = \{-8, -1\}$ ✓

Infinite Algebra 2

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Solve each equation by factoring.

15) $n^2 + 3n = 28$

$\times$ −28 (7 ; −4)

$+$ 3

$n^2 + 3n - 28 = 0$

$(n+7)(n-4)$

Either $n+7=0$ or $n-4=0$

$n = -7$ or $n = 4$

$SS = \{-7, 4\}$

Start

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