Topic: Solving Quadratic Equations using Square Root

Solving a(x + b)² = c Using Square Root

Model #1	Model #2	Model #3
$2x^2 - 8 = 0$	$(x - 5)^2 = 36$	$2(x - 2)^2 = 98$

Solving DOTPS

Model #1	Model #2	Model #3
$2x^2 - 32 = 0$	$Y^4 - 1 = 0$	$9y^2 - 36 = 0$

CFU_Think-Pair-Share

Model #1	Model #2	Model #3
$2x^2 - 128 = 0$	$(x + 2)^2 = 64$	$3(x - 5)^2 = 18$
$16x^2 - 36 - 0$	$100x^2 - 144 = 0$	$49x^2 - 98 = 0$

Guided Practice

Model #1	Model #2	Model #3
$x^2 - 35 = 0$	$(x + 5)^2 - 81 = 0$	$4(x + 1)^2 + 100 = 0$

CFU_Think-Pair-Share

Find the zeros of $f(x) = (x - 3)^2 - 49$, algebraically.

Solution:_____

Find the x-intercepts of $g(x) = 5x^2 - 20$

Solutions:_____

Find the Solutions of $h(x) = -3x^2 - 5x + 12$

Solutions:_____

Directions Find the zeros algebraically.

1) $X^2 - 20 = 0$	2) $X^2 - 144 = 0$	3) $X^2 - 100 = 0$
4) $(x + 7)^2 - 49 = 0$	5) $(x - 3)^2 - 144 = 0$	6) $(x + 3)^2 - 2 = 34$
7) $300 = \frac{1}{4}w^2$	8) $4x^2 = 49$	9) $4(2x - 6)^2 = 100$
10) $4(3x - 7)^2 - 36 = 0$	11) $3(5x + 8)^2 - 120 = 0$	12) $15(11 - x)^2 = 225$

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Extra Practice W30_03

Solve each equation by factoring.

1) $x^2 - 9x + 18 = 0$

2) $x^2 + 5x + 4 = 0$

3) $n^2 - 64 = 0$

4) $b^2 + 5b = 0$

5) $35n^2 + 22n + 3 = 0$

6) $15b^2 + 4b - 4 = 0$

7) $7p^2 - 38p - 24 = 0$

8) $3x^2 + 14x - 49 = 0$

9) $3k^2 - 18k - 21 = 0$

10) $6k^2 - 42k + 72 = 0$

11) $x^2 = 11x - 28$

12) $k^2 + 15k = -56$

13) $3m^2 = -16m - 21$

14) $8x^2 = 30 + 43x$

15) $x^2 + 17x + 49 = 3x$

16) $m^2 = 2m$

17) $2k^2 - 14 = -3k$

18) $3v^2 + 36v + 49 = 8v$

19) $10x^2 - 26x = -12$

20) $15p^2 + 80 = -80p$