

A1 S2 w8d4 Practice 9-5 Completing the Square

Alg 1 Week 8 Fri Warm-up

For #1-3, solve by "unsquaring":

1. $x^2 - 16 = 0$

2. $2x^2 - 5 = 25$

3. $3x^2 + 4 = 40$

4. Simplify:

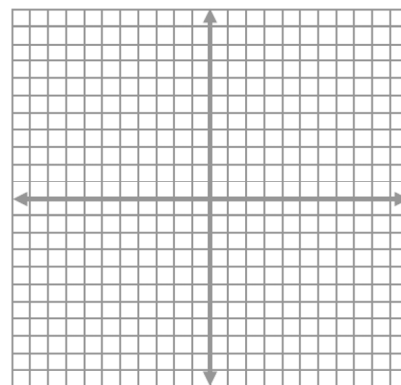
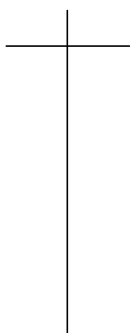
a. $\sqrt{18}$

b. $\sqrt{24}$

c. $\sqrt{54}$

d. $\sqrt{150}$

5. Make a table and graph: $y = x^2 - 2x - 3$



Now use your graph to decide: when would $x^2 - 2x - 3 = 0$?

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Alg 1 Week 8 Friday

Radical Practice

Simplify each expression, show all work:

1. $\sqrt{250}$

2. $\sqrt{700}$

3. $\sqrt{108}$

4. $\sqrt{12}$

5. $\frac{\sqrt{18}}{12}$

6. $\frac{\sqrt{75}}{40}$

7. $\frac{\sqrt{72}}{42}$

8. $\frac{\sqrt{98}}{56}$

Give each answer as BOTH a simplified radical expression AND a decimal rounded to the nearest hundredth.

9. $\frac{6+\sqrt{54}}{3}$

10. $\frac{15-\sqrt{125}}{25}$

11. $\frac{8+\sqrt{20}}{16}$

12. $\frac{18-\sqrt{162}}{36}$

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Algebra 1

Solving Equations by Completing the Square

Solve each equation by completing the square. Express answers in simplified radical form. (No decimals)

1) $a^2 + 2a - 3 = 0$

2) $a^2 - 2a - 8 = 0$

3) $p^2 + 16p - 22 = 0$

4) $k^2 + 8k + 12 = 0$

5) $r^2 + 2r - 33 = 0$

6) $a^2 - 2a - 48 = 0$

7) $m^2 - 12m + 26 = 0$

8) $x^2 + 12x + 20 = 0$

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9) $m^2 + 10m + 14 = -7$

10) $v^2 - 2v = 3$

11) $5v^2 - 20 = 10v$

12) $4v^2 + 16v = 64$

13) $7b^2 - 14b - 56 = 0$

14) $2n^2 + 12n + 10 = 0$

15) $n^2 + 13n + 22 = 7$

16) $5n^2 + 15n - 67 = -2$