

## A1 S2 w13d3 block More 11-1 Simplify Rational Expressions

### Alg 1 Block Week 13

### Warm Up

Simplify each expression.

1.  $\sqrt{5}(3 + 2\sqrt{2})$

2.  $\frac{\sqrt{32}}{\sqrt{20}}$

3.  $\frac{x+7}{8x^2-12x} \cdot (4x^2-9)$

4.  $8\sqrt{48} - \sqrt{64}$

5.  $9\sqrt{18} - \sqrt{2} + 2$

6.  $\frac{20-4k}{2k^2-7k-15}$

7.  $\frac{x}{x-3} \cdot \frac{2x-6}{x-2}$

8.  $\frac{3x^2}{x+2} \cdot \frac{x^2+3x+2}{x}$

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Algebra 1 Wk 13 1/1/17 Block

Radical Wksht #2

Name \_\_\_\_\_

**CW (before quiz) - this is just like today's quiz!**

(1-4) Simplify completely, show ALL work:

1.  $\sqrt{7} - 3\sqrt{7} + 7$

2.  $8\sqrt{11} + 5\sqrt{11} - 2\sqrt{13} + 5\sqrt{13}$

Answer: \_\_\_\_\_

Answer: \_\_\_\_\_

3.  $\sqrt{8} - 5\sqrt{2}$

4.  $2\sqrt{24} + 3\sqrt{54}$

Answer: \_\_\_\_\_

Answer: \_\_\_\_\_

(5-8) Multiply & simplify, show all work

5.  $\sqrt{2}(3 - 2\sqrt{6})$

6.  $\sqrt{3}(3\sqrt{3} - 7)$

Answer: \_\_\_\_\_

Answer: \_\_\_\_\_

7.  $(\sqrt{10} + 7)(\sqrt{10} - 4)$

8.  $(2\sqrt{5} + 6)(2\sqrt{5} - 6)$

Answer: \_\_\_\_\_

Answer: \_\_\_\_\_

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(9-12) Divide and simplify, show all work .

9.  $\sqrt{\frac{42}{36}}$

Answer: \_\_\_\_\_

10.  $\sqrt{\frac{5}{35}}$

Answer: \_\_\_\_\_

11.  $\frac{\sqrt{24}}{\sqrt{6}}$

Answer: \_\_\_\_\_

12.  $\frac{\sqrt{2}}{\sqrt{18}}$

Answer: \_\_\_\_\_

(13-14) Solve and check your answer:

13.  $2\sqrt{x} + 5 = 15$

Answer: \_\_\_\_\_

14.  $\sqrt{2-x} = x$

Answer: \_\_\_\_\_

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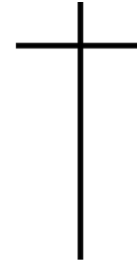
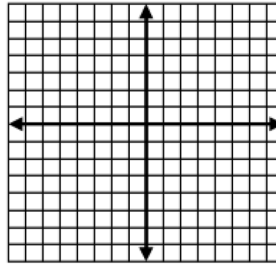
Alg 1 Week 13 block

Solving Quadratics 4 ways #3

1. Solve by graphing:

$$x^2 - 2x - 3 = 0$$

What is the vertex \_\_\_\_\_



Solutions: \_\_\_\_\_

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2. Solve by completing the square.

$$x^2 - 2x - 3 = 0$$

Solutions: \_\_\_\_\_

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3. Solve using the quadratic formula.

$$x^2 - 2x - 3 = 0$$

Solutions: \_\_\_\_\_

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4. Solve by factoring and the zero product property.

$$x^2 - 2x - 3 = 0$$

Check:

Solutions: \_\_\_\_\_

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## HW: Pg 667: 9, 11, 15, 16, 31, 33

Simplify each expression. State any excluded values.

◀ See Problems 1, 2, and

11.  $\frac{2p - 24}{4p - 48}$

9.  $\frac{4x^3}{28x^4}$

13.  $\frac{3x + 6}{3x^2}$

15.  $\frac{2b - 8}{b^2 - 16}$

Simplify each expression. State any excluded values.

31.  $\frac{2r^2 + 9r - 5}{r^2 + 10r + 25}$

33.  $\frac{5t^2 + 6t - 8}{3t^2 + 5t - 2}$

