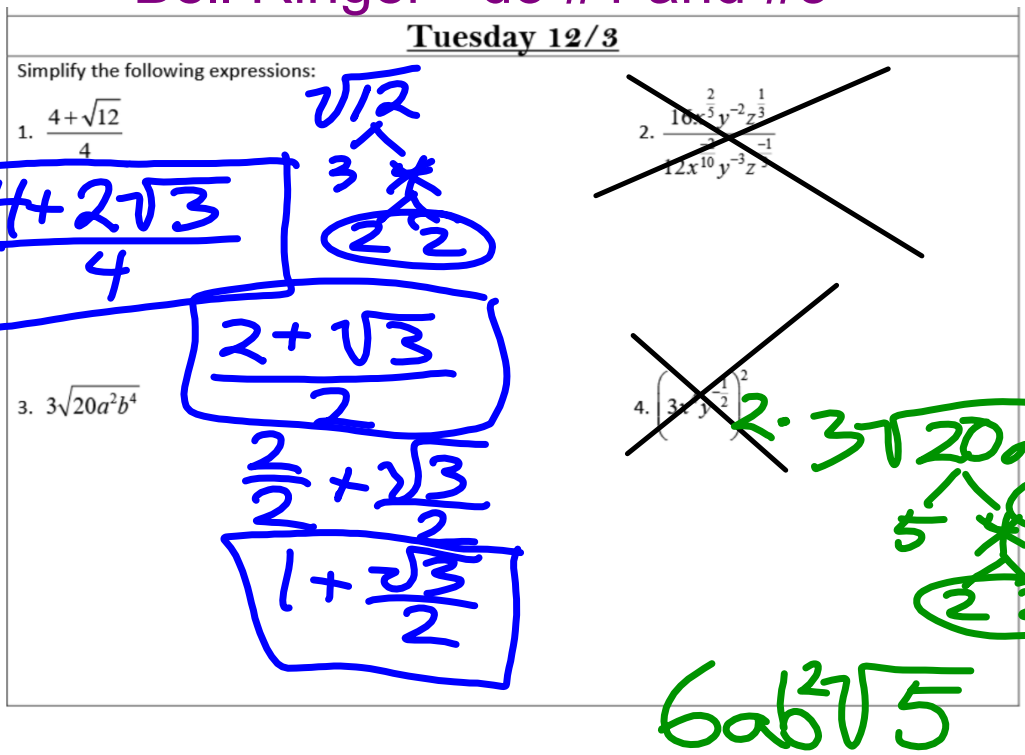
Bell Ringer - do #1 and #3



Week #2 Packet due now - turn in!

Solving Quadratics Review ws due tomorrow - get it out (Week #3)

due tomorrow - questions?

Solving Quadratic Equations Review ws

Write the equation in standard form. Identify a, b, and c and then find the discriminant. Determine if the equation has one real, two real or no real solutions.

1. $2x^2 - 4x + 2 = 0$
2. $-5x^2 + 7x - 13 = 2$
3. $4x^2 - 8 = 6x^2 - 3x$
4. $-2x = x^2 + 3x - 7$

Use the quadratic formula to solve the equation. Answers should be in **exact form** (no decimals).

5. $x^2 + 4x = 2$
6. $2x^2 - 8x = 1$
7. $4x^2 + 2x = -2x - 1$

8-19. Solve each quadratic equation using any method you choose.

8. $2(x-6)^2 = 32$
9. $3x^2 + 2x = 0$

$x(3x+2)=0$ $x=0$ $3x+2=0$ $x=-\frac{2}{3}$

10. $x^2 + 12 = 13$
11. $x^2 - 4x + 3 = 0$

$a=2$ $b=1$ $c=-1$

12. $3x^2 + 2x = x^2 + x + 1$
13. $5x^2 - 9x = -3$

$2x^2+x-1=0$

$x=\frac{-1\pm\sqrt{(1)^2-4(2)(-1)}}{2(2)}$

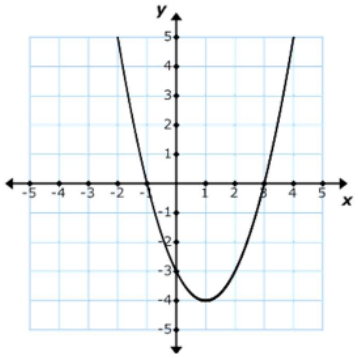
14. $x^2 - 24 = 0$
15. $-4t^2 + 16t = 0$

$\frac{-1\pm\sqrt{9}}{4}$ $\frac{-1\pm3}{4}$ $\frac{2}{4}=\frac{1}{2}$ $\frac{-1-3}{4}$ $\frac{-1+3}{4}$ $\frac{-4}{4}=-1$

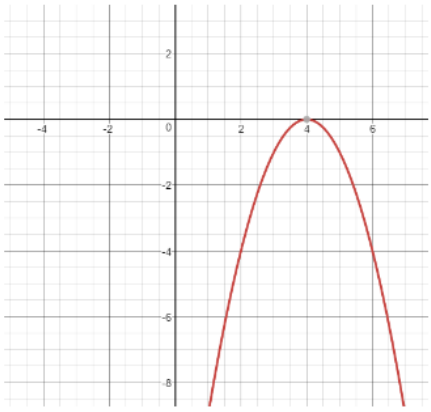
16. $-x^2+3x+4=-2$

17. $4(x-5)^2-2=62$

18.



19.



20. A contestant tosses a horseshoe from one pit to another with an initial vertical velocity of 50 feet per second. The horseshoe is released 3 feet above the ground. Use the model $h = -16t^2 + 50t + 3$ where h is the height (in feet) and t is the time (in seconds) to tell how long the horseshoe was in the air. Round to the nearest hundredth (sketch a graph to help visualize if necessary!).

21. For the following problem $2x^2 - 10x + 8 = 0$

a) Solve the equation by factoring:

b) The quadratic formula:

c) Explain what you notice:

Standards 4A and 4B Opportunity 1 tomorrow

due TOMORROW

Standards 4A and 4B Review

1-15. Simplify

1. $3\sqrt{32}$

2. $\sqrt{48x^5}$

3. $\sqrt[3]{-108}$

4. $-5\sqrt[3]{128x^6}$

5. $\frac{2}{\sqrt{6}}$ $\frac{\sqrt{6}}{\sqrt{6}} = \frac{2\sqrt{6}}{6}$ $\frac{\sqrt{6}}{3}$

6. $\sqrt{\frac{4}{52}}$ $\frac{\sqrt{1}}{\sqrt{13}}$ $\frac{\sqrt{1}}{\sqrt{13}} = \frac{1}{\sqrt{13}}$ $\frac{1}{\sqrt{13}} \cdot \frac{\sqrt{13}}{\sqrt{13}} = \frac{\sqrt{13}}{13}$

7. $\frac{6+\sqrt{8}}{2}$

8. $\frac{3+\sqrt{12}}{3}$

9. $5\sqrt{50}+\sqrt{8}$

10. $3\sqrt{7}-7\sqrt{2}-7\sqrt{7}$ $-4\sqrt{7}-7\sqrt{2}$

11. $3(\sqrt{3}-4)$ $3\sqrt{3}-12$

12. $\sqrt{5}(\sqrt{80}-\sqrt{3})$

13. $\sqrt{\frac{64}{15x^2}}$

14. $\sqrt{72a^5bc^4}$

15. $\sqrt[4]{\frac{x^5}{y^8z^4}} = \frac{\sqrt[4]{x^5}}{\sqrt[4]{y^8z^4}}$ XXXXX $x\sqrt[4]{x}$ y^2z

16-18. Evaluate $\sqrt{a^2+bc^2}$ for the given value and write in simplest form.

16. $a=2$, $b=4$, $c=-3$

17. $a=-1$, $b=5$, $c=2$

18. $a=7$, $b=3$, $c=-5$

$\sqrt{4+4(9)}$ $=\sqrt{4+36}$ $=\sqrt{40}$ x^{10} 2's $2\sqrt{10}$

19-30. Solve the Quadratic Equations. Write your answers in exact form (no decimals).

19. $5x^2 - 125 = 0$

20. $x^2 + 14x = 15$

21. $x^2 + 2x = 5$

22. $(2x-3)(x+6) = 0$

23. $4x^2 - 371 = 29$

24. $3x^2 - 120x = 0$

25. $(2x-3)^2 = 9$

26. $x^2 - 4x = -1$

27. $x^2 - 8x + 15 = 0$

28. $3x^2 - 18x + 12 = 0$

29. $-21 = 15 - 2x^2$

30. $x^2 + 6x = -9$

31-33. Find the discriminant and the number of x-intercepts for the following equations.

31. $y = 4x^2 + 4x + 1$

32. $f(x) = 3x^2 + 8x + 8$

33. $y = -x^2 + 5x + 13$