

①.

Solve the linear system below:

$$\begin{cases} 3x + 2y = 10 \\ (4x - y = 6) \end{cases}$$

1st

$$\begin{array}{r} \begin{cases} 8x - 2y = 12 \\ + \quad 3x + 2y = 10 \end{cases} \\ \hline 11x = 22 \\ \Rightarrow x = 2 \end{array}$$

$$\boxed{(2, 2)}$$

and

$$\begin{array}{l} 3(2) + 2y = 10 \\ \Rightarrow 2y = 4 \\ y = 2 \end{array}$$

2.

Completely factor the following expression below:

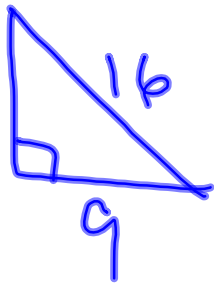
$$8m^2 - 72$$

$$8(m^2 - 9)$$

$$8(m+3)(m-3)$$

③

What is the length of the third side of a right triangle with a leg of 9 inches and a hypotenuse of 16 inches?



$$a^2 + b^2 = c^2$$

$$a^2 + 9^2 = 16^2$$

$$\Rightarrow a^2 = 16^2 - 9^2$$

$$a^2 = 175$$

$$a = \sqrt{175}$$

$$= 25\sqrt{7} = \boxed{5\sqrt{7}}$$

④ Find maximum area:

$$A = 27x - x^2$$

⑤

$$a = \frac{v - i}{t} \quad ; \quad \text{for } v$$

$$a = \frac{v - i}{t}$$

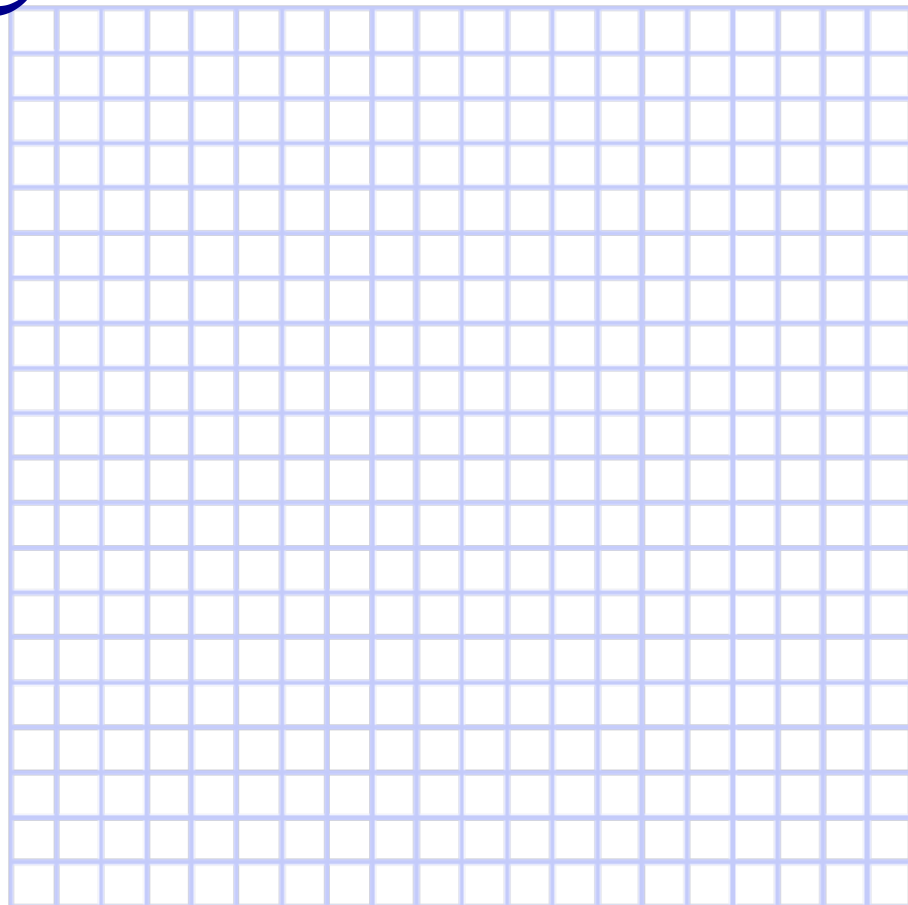
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6.

Simplify the radical below :

$$\sqrt{\frac{36}{7}} =$$

7. On the grid to the right, sketch the graph of the inequality: $3x - 6y > 12$



1st

3rd

4th

7th

8.

Write an equivalent expression for $5x^2 - 125$ in its completely factored form.

1st

3rd

4th

7th



A Jolly Rancher candy is thrown into the air from the ground by Mr. Chute! The height, h , of the candy in feet after t seconds can be represented by the equation $h = -16t^2 + 24t$.

1.) How long before this candy comes crashing to the ground?

2.) What is the maximum height the candy will reach, and when will it reach this height?

1st

3rd

4th

7th



How many solutions does the equation below have?

$$2x^2 + 5x = 3$$

1st

3rd

4th

7th

10. The WMS golf team held a talent show fund raiser this spring. Tickets cost \$5 for students and \$10 for adults. After the show, Mrs. Smoler found that the team had sold 569 tickets and raised \$3425. Write a system of linear equations that you could use to determine how many student tickets and adult tickets were sold for the show. Define your variables on the first two lines. **YOU DO NOT NEED TO SOLVE THIS SYSTEM.**



1st

3rd

4th

7th



Solve the following system of linear equations using any method except for guess and check. Show all your work.

$$\begin{cases} 4x - 3y = 25 \\ -3x + 8y = 10 \end{cases}$$

1st

3rd

4th

7th

18. Solve for x: $9x + 69 = 16 - 7(7 - x)$

1st

3rd

4th

7th

$$14. \quad (x+y)^2 =$$

$$(x-y)^2 =$$

1st

3rd

4th

7th

15. Solve for c in terms of d and e : $12 = \frac{9c - d}{e}$

1st

3rd

4th

7th

16. What is the slope of the line represented by: $x - 3y = 15$

1st

3rd

4th

7th

17. What is the x-intercept of the line represented by the equation $x - 3y = 15$

1st

3rd

4th

7th

18. What is the y-intercept of the line represented by the equation $x - 3y = 15$

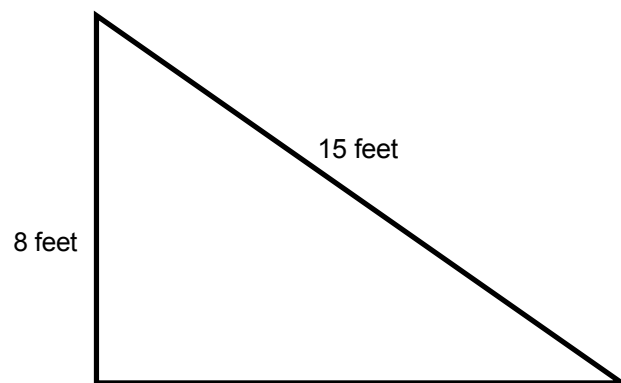
1st

3rd

4th

7th

21. What is the length of the missing side for the triangle?



1st

3rd

4th

7th

22. Given en the following quadratic equation: $y = x^2 + 6x - 7$

a.) Calculate the x-intercepts.

b.) Calculate the y-intercept.

c.) Write the equation for the line of symmetry.

d.) Find the coordinate for the vertex of the parabola.

e.) State whether the parabola opens up of down.

1st

3rd

4th

7th

This concludes your Final Exam review sessions with me...Now continue to work through Review Packets, look over old assessment, skim through your class notes, discuss questions in your small groups and study as much as you can handle - remembering to take breaks every 20-30 minutes. I am rooting for you!

-Mr. Maz

Final Exam Day with a non-graphing calculator Monday June 16

