

A1 S2 w12d3 10.4 Solving Radical Equations

Alg 1 Block Week 12 Warm Up (Partner/Group Task)

Use the Pythagorean Theorem to Find Unknowns

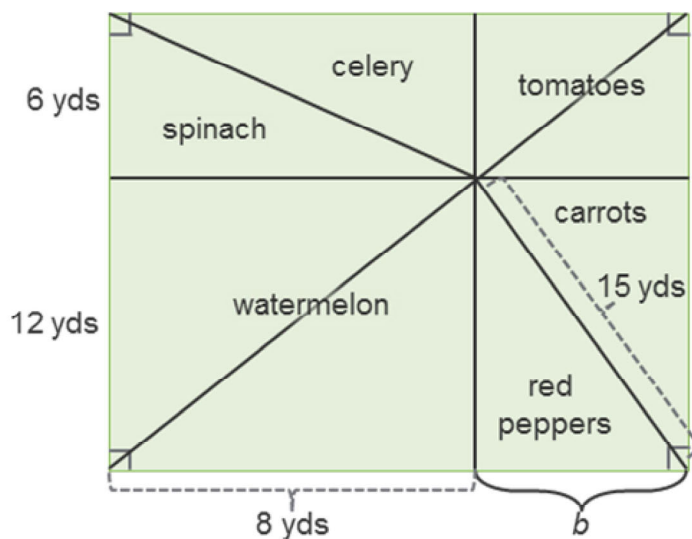
Please read all directions carefully.

- Clearly label all of your work, organize your paper.
- Show the set up for each part
- Include all computation, neatly written
- Each group member must have their own work on their own paper, but you should work together to decide how to solve each part.
- Up to 2 points bonus is available for complete sentence answers and overall neatness.

At a park in Mission Viejo, neighbors get together to plan a community garden. Plans for the community garden are shown below.

- A) The Gardening group wants to put a fence around the entire outer edge of the garden. How many yards of fencing will they need to purchase in order to fence the project?

(3 points – 2 points for finding side b and 1 point for finding the perimeter of the garden.)



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- B) Is the value you just wrote for the total length of the walkway a rational number or an irrational number? Explain. (2 points)
- C) The members of the gardening group plan to build a walkway through the garden as formed by the hypotenuse of each of the four triangles in the drawing. That way, the gardeners will be able to access all sections of the garden. Calculate the length of the entire walkway to the nearest hundredth of a yard. Show your work.
(5 points—1 point for each length calculation, 1 point for rounding properly, and 1 point for the total distance)

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Review Notes for 10-4: Solving Radical Equations

1. $\sqrt{2t} - 3 = 11$

steps:

1.

2.

3.

4.

2. $2 = \sqrt{-3y - 5}$

3. $\sqrt{x^2 + 20} = \sqrt{9x}$

4. $\sqrt{x + 3} = -5$

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Algebra 1 wk 12 Block Hw

10.4 A +Review

Solve and CHECK:

1. $\sqrt{5r} + 10 = 15$ check:

4. $\sqrt{x-8} = 6$ check:

2. $\sqrt{x-7} = 6$ check:

5. $-6 - \sqrt{3y} = -3$ check:

3. $\sqrt{9x-4} = \sqrt{6x+2}$ check:

6. $\sqrt{2x^2+17} = \sqrt{x^2+6x+9}$ check:

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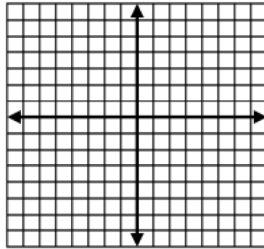
7. Graph $y = x^2 - 2x - 8$ to find the zeroes of the function.

Axis of symmetry _____

Vertex: _____

Shape: _____

Zeroes; _____



x	y

8. Solve $x^2 - 2x - 8 = 0$ by factoring.

Answer: _____

9. Solve by completing the square:

$$x^2 - 2x - 8 = 0$$

Answer: _____

10. Solve by using the Quadratic Formula:

$$x^2 - 2x - 8 = 0$$

Answer: _____