

Week 22 Algebra 1 Assignment:

Day 1: pp. 417-418 #1-25 odd, omit #19, 21

Day 2: pp. 417-418 #2-24 even

Day 3: pp. 421-422 #1-9 odd, 11-20, 23-27

Day 4: pp. 427-428 #1-11 odd, 13-19, 22-26

Day 5: pp. 430-431 #1-13 odd, 15-24, 27-31

Notes on Assignment:

Pages 417-418:

General notes for this section: Remember to put a “wall” where you see addition or subtraction. Simplify each radical separately and then only add like radicals just as you add like terms. The radicals must be identical or you cannot add them.

Work to show:

#1-18: Write the problem, show the walls and branching to simplify each radical, then combine like terms to get your final answer.

#23: Long division

#24: Write equation and solve.

#25: Answer only is fine.

#1: If there is a radical with no number in front, put a 1. This is $1\sqrt{3} + 5\sqrt{3}$.

#7: Simplify the $\sqrt{20}$ first, and then see if you can combine any like radicals.

Pages 421-422:

Work to show:

#1-20: Write the Pythagorean Theorem, fill it in, and work it out.

#23-27: Answers only

#1-9: Use the Pythagorean Theorem $a^2 + b^2 = c^2$. Remember to simplify any radical that you get as an answer.

#11-14: Test these in the theorem. Make sure that your hypotenuse is c in the formula.

#15-17: Remember that when you square a square root, they “undo” each other and you just get what was underneath.

#19-20: Draw pictures for these. You do not have to do these as 5-step word problems.

Pages 427-428:

General notes for this section: The distance formula for finding the distance between points (x_1, y_1) and (x_2, y_2) is

$$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

Work to show:

#1-11: Write the numbers in the distance formula and then simplify.

#13-17: Four distance problems and one addition problem.

#18-19: Write the numbers in the distance formula and then simplify.

#22-26: Answer as directed.

#1-11: Put these into the formula and simplify. Make sure all radicals are simplified. Show your work.

#13-17: You will have to do the distance formula for each of the sides and then add your results together for the perimeter.

#18-19: Use a calculator for these problems and round your answer to the nearest tenth.

#22: This must be factored by parts. First, pull the y out of the first 2 terms. Then, factor the $16x^2 + 9$ as a difference of squares. When you finish, you will see a common binomial factor of "stuff" that you can pull out.

#23: This is from section 3.8.

#25: Graph it on a number line.

Pages 430-431:

Work to show:

#1-24: Write the problem, do the multiplication, and simplify.

#27-28: Show work as needed.

#29: Long division

#30: Show Pythagorean Theorem.

#31: Graph

#1-3: Use Distributive on these problems.

#3: Notice that after multiplying with Distributive, your first term will need to be simplified.

- #5-13: These are FOIL problems. Be careful as you multiply, and make sure that after multiplying that you simplify all radicals and combine any like radicals.
- #5: You have buddies showing up here. Multiply them as buddies.
- #9: Write this binomial twice and then use FOIL.
- #15: Multiply the first 2 binomials using FOIL. Then take that answer and multiply it times the 3rd binomial.
- #16: Square the first binomial first (write down twice and use FOIL). Then take that answer and multiply it times the 3rd binomial.
- #17: You can either multiply the first binomial through using Distributive, and then multiply your answer times the other binomial, or, you can do the FOIL first and then multiply through by the $\sqrt{5}$.
- #27: Solve for x and leave the answer in radicals.
- #28: Rationalize your denominator.
- #29: This is a strange long division problem, but do it as you have been taught. (o:
- #30: When you put these leg lengths into the Pythagorean Theorem, make sure you have () around each one.
- #31: Put each equation in slope-intercept form to graph.