## What are we learning in the Right Triangles Chapter 9? \*\*Please indicate how you feel about the required topics in this unit. \*\*

Objective	Example	Answer	Rating
Simplify radicals	Simplify the following values: a. $5\sqrt{1134}$ b. $2\sqrt{75} - 3\sqrt{147}$ c. $(5-3\sqrt{2})^2$ d. $\frac{5}{\sqrt{27}}$	a. $45\sqrt{14}$ b. $-11\sqrt{3}$ c. $43-30\sqrt{2}$ d. $\frac{5\sqrt{3}}{9}$	© © 8
Solve a quadratic equation by various methods	Solve for x: a. $8x^2 + 2x - 3 = 0$ b. $5x^2 - 6x - 2 = 0$ c. $3x^2 - 4 = 104$	a. $x = \frac{1}{2}, \frac{-3}{4}$ b. $x = \frac{3 \pm \sqrt{19}}{5}$ c. $x = \pm 6$	© © 8
Apply Altitude on Hypotenuse Theorems	a. Find the measure of CR if RU = 5 and RD = 10. b. Find the measure of UD if UR = 10 and CR = 25. c. Find the measure of CU if RU = 2 and CD = $2\sqrt{6}$ .	a. $CR = 20$ b. $UD = 5\sqrt{6}$ c. $CU = 4$	© © 8
Apply the Pythagorean Theorem, families of right triangles, and the reduced triangle principle to find missing sides of a triangle	Calculate the perimeter of the interior quadrilateral formed from connecting points on the rectangle: 14 6 4 6 5 15	$\sqrt{61} + 17 + 2\sqrt{53} + 2\sqrt{10}$	0 9 8

Use the distance formula to find the distance between two points	<ul> <li>a. A triangle has points A(-3, 7), B(4,5) and C(1,-2). Find the length of the median from B to AC.</li> <li>b. The distance between (-2, 4) and (x, 16) is 4√13. What is the x value?</li> </ul>	a. $\frac{5}{2}\sqrt{5}$ b. x = 6 or -10	© © 8
Apply rules for 30°-60°-90° triangles	Calculate the span for a regular hexagon if each side length is $8\sqrt{3}$ .	24	© © 8
Apply rules for 45°-45°-90° triangles	Calculate the perimeter of the isosceles triangle below: $16 \times 10^{-10} \times 1$	$52 + 10\sqrt{2}$	o e 8
Apply the Pythagorean Theorem in three dimensions	Given a square pyramid with slant height of 40 and lateral edge of 41, what is the length of the edge of the base? What is the length of the altitude?	Base edge = 18 Altitude = $\sqrt{1519}$	© © 8