Name: key Date: Period:

HW #9-6: Quiz Review

1. Simplify the following.

a. $\sqrt{16x^3y^4}$

$4xy^2\sqrt{x}$

b. $\sqrt{75x^6y^2}$

$5x^3y\sqrt{3}$

c. $\sqrt{72x^{11}y^8z^7}$

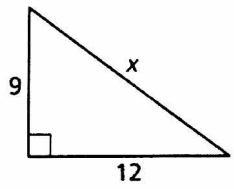
$6x^5y^4z^3\sqrt{2xz}$

2. List the 4 common Pythagorean Triples we discussed this chapter.

3-4-5; 5-12-13; 8-15-17; 7-24-25

3. Find the value of x. Exact answers. Then tell whether it forms a Triple.

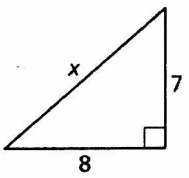
a.



$x=15$

yes a triple

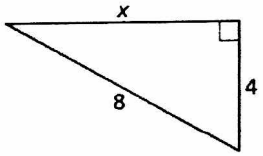
b.



$x=\sqrt{113}$

Not a triple

c.



$x=4\sqrt{3}$

Not a triple

4. Given the side lengths of the triangle, classify the triangle as acute, right, or obtuse.

a. 24, 32, and 40

right Δ

b. 7, 9, and 13

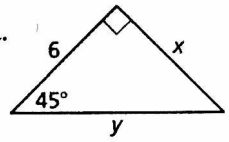
obtuse Δ

c. 12, 15, and $10\sqrt{3}$

acute Δ

5. Find the values of x and y.

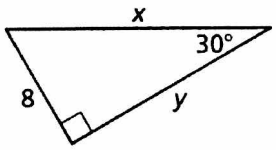
a.



$x=6$

$y=6\sqrt{2}$

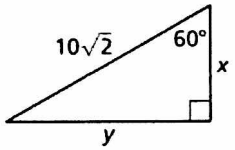
b.



$x=16$

$y=8\sqrt{3}$

c.



$x=5\sqrt{2}$

$y=5\sqrt{6}$

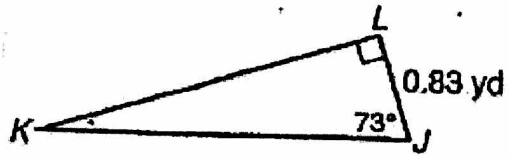
6. Find the area of the triangle in 5(c).

$25\sqrt{3}$

7. Find the perimeter of the triangle in 5(a).

$12+6\sqrt{2}$

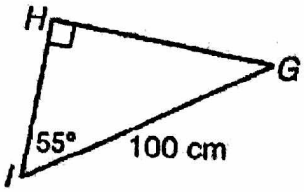
8. Find KL. Exact and approximate answers.



$0.83(\tan 73) \approx 2.71$

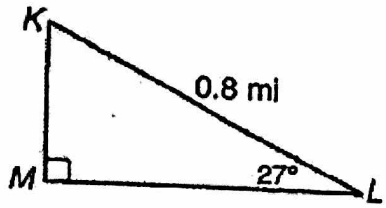
TRIG PRACTICE: *might* be extra credit… ☺

9. Find HI. Exact and approximate answers.



$100(\cos 55) \approx 57.36$

10. Find KM. Exact and approximate answers.



$0.8(\sin 27) \approx 0.36$

11. $\sin 0° =$ 0

12. $\sin 90° =$ 1

13. $\cos 0° =$ 1

14. $\cos 90° =$ 0

15. $\tan 0° =$ 0

16. $\tan 90° =$ undefined