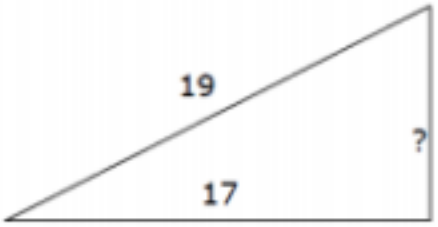
Study Guide 2021 Mixed Ideas Chapter **Name**_____

Lesson: Factoring polynomials to Solve.

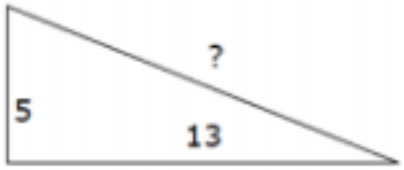
1. $g(g-5)=0$
2. $7(x+2)(x-3)=0$
3. $y^2+13y+40=0$
4. $p^2=5p+24$
5. $m^2+36m=0$
6. $49m^3-126m^2+81m=0$
7. $l^2-13l+36=0$
8. $(2m+3)(m+4)=3m+6$
9. $(3x-4)(4x+7)=0$
10. $3f(2f-5)(3f+1)=0$
11. $g^2-\frac{g}{5}=\frac{4}{5}$
12. $\frac{w^2}{10}-\frac{7w}{10}=\frac{9}{5}$
13. $(v-1)(v-1)=36$
14. $(2x-1)(3x+7)=3x^2-2x+3$
15. $(4y-3)(y+2)=y^2+18y-16$
16. $h^4-4h^2+64=(5h-6)(5h+6)$

Lesson: Pythagorean Theorem..

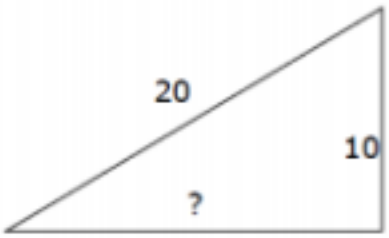
1.



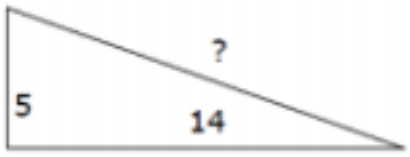
2.



3.



4.



Lesson: Pythagorean Theorem.

5. Two joggers run 8 miles north and then 5 miles west. What is the shortest distance, to the nearest tenth of a mile, they must travel to return to their starting point?

6. Oscar's dog house is shaped like a tent. The slanted sides are both 5 feet long and the bottom of the house is 6 feet across. What is the height of his dog house, in feet, at its tallest point?

7. To get from point A to point B you must avoid walking through a pond. To avoid the pond, you must walk 34 meters south and 41 meters east. To the nearest meter, how many meters would be saved if it were possible to walk through the pond?

8. A suitcase measures 24 inches long and the diagonal is 30 inches long. How much material is needed to cover one side of the suitcase?

Lesson: Classifying Triangles

1) Determine if the sides can make a triangle
2) If yes, classify the triangle.
3) Solutions should be "Not a triangle", "Acute", "Right", or "Obtuse"

A. 5, 12, 13

B. 7, 11, 15

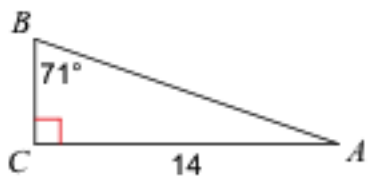
C. 6, 8, 9

D. 9, 12, 2

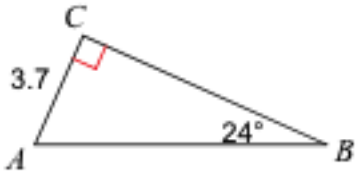
Lesson: Special Right Triangles.

Solve for ALL parts of the triangle.

1.

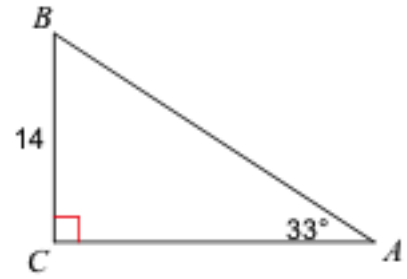


2.



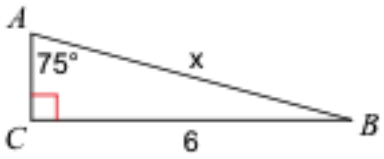
Solve for ALL parts of the triangle.

3.

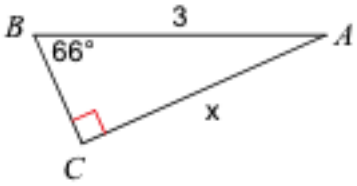


Solve for "X" in the triangle.

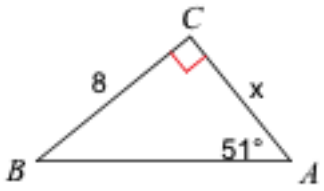
4.



5.



6.



7.