

Name: _____ Period: _____

Summer Assignment

for Trigonometry

Mrs. Whitt

If you have questions over the summer, email me at: swhitt@lvhs.org
I check my Lenape Valley email over the summer and will answer your questions

1. Solve for b given: $16 + b^2 = 25$

Pythagorean Theorem

2. Simplify radicals $\sqrt{12}$

3. Square values $(2\sqrt{5})^2$

4. Factor: $x^2 + 8x + 15 = 0$

Factoring

5. Factor: $x^3 + 27 = 0$

6. Factor: $x^3 - 8 = 0$

7. Factor: $x^2 - 25 = 0$

8. Rationalize the denominator: $\frac{2}{\sqrt{3}}$

Rationalize

9. Rationalize the denominator: $\frac{2}{4-\sqrt{3}}$

10. Solve the system of equations:
$$\begin{aligned} x + y &= 8 \\ x - y &= 10 \end{aligned}$$

Solve the system

11. Cross multiply to solve for x: $\frac{.25}{1} = \frac{x}{15}$

Cross multiply

12. Reduce/rename the fractions

$$\frac{0}{4}$$

$$\frac{4}{4}$$

$$\frac{4}{0}$$

$$\frac{-4}{4}$$

$$\frac{4}{-4}$$

Reduce fractions

13. Get a common denominator for:

$$1 + \frac{\sqrt{3}}{3}$$

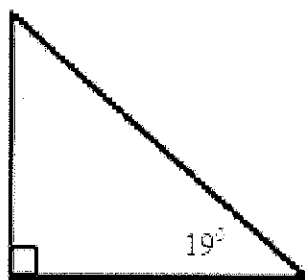
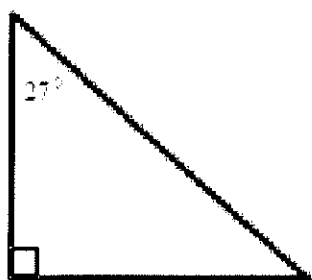
$$1 + \frac{\sqrt{2}}{5}$$

$$1 - \frac{\sqrt{6}}{2}$$

$$1 + \frac{\sqrt{10}}{12}$$

Common denominator

14. Find the third angle of the triangle for:



15. What are the reciprocals of:

$$\frac{0}{4}$$

$$\frac{\sqrt{5}}{2}$$

$$\frac{-3}{4}$$

$$\frac{-5}{4}$$

$$\frac{\sqrt{2}}{3}$$

Reciprocals

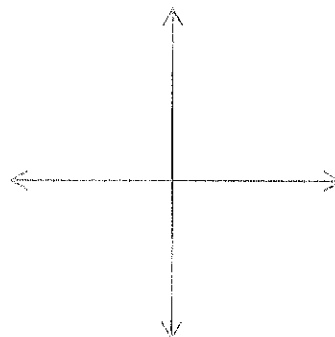
16. Determine the quadrant of each ordered pair

(1,4)

(-4,4)

(-3,-4)

(4,-2)



17. Multiply out and collect like terms:

$$(\sqrt{3} - \sqrt{2})^2 =$$

18. Graphing transformations: (Print off a piece of graph paper and graph all 5 on the same graph)

$$Y = (x - 3)^2$$

$$Y = -(x - 3)^2$$

$$Y = (x - 3)^2 + 4$$

$$Y = 2(x - 3)^2 + 4$$

$$Y = -2(x - 3)^2 + 4$$

19. Simplify these expressions to lowest terms:

$$\frac{1 + 2 \bullet 3}{1 - 2 \bullet 5}$$

$$\frac{6 - 2 \bullet 4}{6 - 2 \bullet 8}$$

20. Use a calculator to evaluate these expressions:

$$(-47)^2$$

$$(-18)^2$$

$$(-98)^2$$

21. Multiply these fractions:

$$\frac{2}{3} \bullet \frac{6}{10} =$$

$$\frac{4}{9} \bullet \frac{\sqrt{6}}{8} =$$

$$\frac{3}{15} \bullet \frac{7}{21} =$$

$$\frac{20}{12} \bullet \frac{60}{8} =$$

22. Do these calculations:

$$\sqrt{12(12-4)(12-5)(12-3)} =$$

$$\sqrt{(12-4)^2 + (12-5)^2} =$$

23. Use dimensional analysis:

$$12000 \text{ sec } onds \cdot \frac{1 \text{ min } ute}{60 \text{ sec } onds} \cdot \frac{1 \text{ hour}}{60 \text{ min } utes}$$

$$3600 \text{ sec } onds \cdot \frac{1 \text{ min } ute}{60 \text{ sec } onds} \cdot \frac{1 \text{ hour}}{60 \text{ min } utes}$$

24. Round to the nearest tenth:

$$0.1234 = \underline{\hspace{2cm}}$$

$$0.3946 = \underline{\hspace{2cm}}$$

$$-0.5728 = \underline{\hspace{2cm}}$$

$$0.9728 = \underline{\hspace{2cm}}$$

25. Is each a function?

