

This packet contains the topics that you have learned in your previous courses that are most important to Trigonometry and Pre- Calculus. Please **read the directions** and **show your work** for each problem. Then write your answers on the answer sheet. Due by Monday, August 28, 2017.
No calculators.

1. Place the correct symbol ($<$ or $>$) between $-\frac{10}{3}$ and $-|-4|$.

2. Find the distance between the real numbers -17 and 39 .

Evaluate each quantity.

3. a) $27\left(-\frac{2}{3}\right)$

b) $\frac{5}{18} \div \frac{15}{8}$

4. a) $\left(-\frac{3}{5}\right)^3$

b) $\left(\frac{3^2}{2}\right)^{-3}$

5. a) $\sqrt{5} \cdot \sqrt{125}$

b) $\frac{\sqrt{72}}{\sqrt{2}}$

Simplify the expressions.

6. a) $3z^2(2z^3)^2$

b) $(u-2)^{-4}(u-2)^{-3}$

7. a) $\left(\frac{x^{-2}y^2}{3}\right)^{-1}$

b) $9z\sqrt{8z} - 3\sqrt{2z^3}$

8. a) $-5\sqrt{16y} + 10\sqrt{y}$

b) $\sqrt[3]{\frac{16}{v^5}}$

Perform the operations and simplify.

9. a) $(x^2 + 3) - [3x + (8 - x^2)]$

b) $(x + \sqrt{5})(x - \sqrt{5})$

10. a) $\frac{8x}{x-3} + \frac{24}{3-x}$

b) $\left(\frac{2}{x} - \frac{2}{x+1}\right) \div \left(\frac{4}{x^2-1}\right)$

Factor the expression completely.

11. $2x^4 - 3x^3 - 2x^2$

12. $x^3 + 2x^2 - 4x - 8$

13. $8x^3 - 27$

14. Rationalize the denominators.

a) $\frac{16}{\sqrt[3]{16}}$

b) $\frac{6}{1-\sqrt{3}}$

15. Plot the points (-2,5) and (6,0). Find the coordinates of the midpoint of the line segment joining the points and the distance between the points.

16. The area of a rectangle of length L is $45L - L^2$. Factor the expression to determine the width of the rectangle.

Name _____

Answer sheet Honors Trig

1. _____

2. _____

Evaluate each quantity.

3. a) _____

b) _____

4. a) _____

b) _____

5. a) _____

b) _____

Simplify the expressions.

6. a) _____

b) _____

7. a) _____

b) _____

8. a) _____

b) _____

Perform the operations and simplify.

9. a) _____

b) _____

10. a) _____

b) _____

Factor the expression completely.

11. _____

12. _____

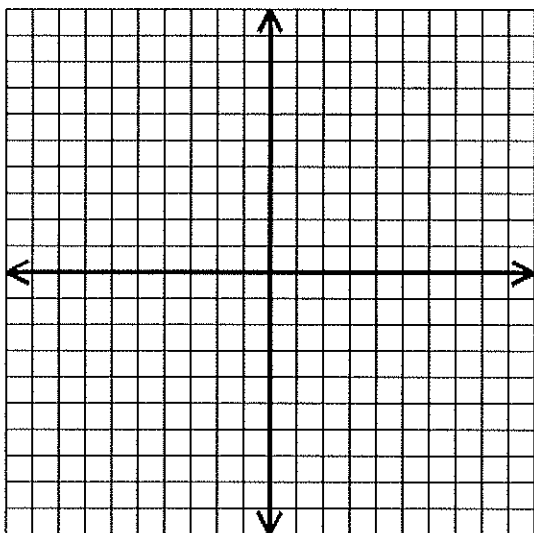
13. _____

14. Rationalize the denominators.

a) _____

b) _____

15. Mid Points _____ Distance _____



16. _____