

Assignment R

Sec. ___

This review assignment is due the first day of class. If the assignment seems difficult, then consider refreshing your algebra and triangle trigonometry skills with either MATH 137 or the short online refresher courses Algebra Prep for Math 12 and Trig Prep for Math 12 at

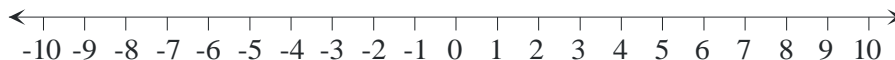
<https://sites.google.com/site/mathchaircamosun/home/ALEKS-prep-courses>

No calculators. Show all of your work in the space provided.

1. Simplify: $\frac{x^4 - 16}{x^2 - 10x + 16}$

2. Combine: $\frac{1}{x+1} - \frac{1}{x-1}$

3. Solve and graph your solution on the number line: $3x - (x - 7) > 4\left(x - \frac{20}{10}\right)$

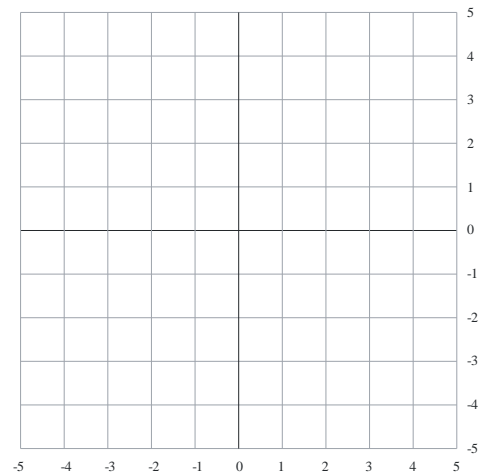


4. Solve $S = 2\pi r^2 + 2\pi rh$ for h .

5. Solve the following system of equations algebraically.

$$\begin{cases} 3x + 2y = -3 \\ -5x + 4y = 16 \end{cases}$$

6. Graph the two linear equations from the previous question and show the solution for the system on the graph.



7. Simplify: $\frac{\left(2x^{-2}y^{\frac{1}{2}}\right)^4 3x^3y^0}{2x^{-1}y}$

8. Solve $2x^2 - 4x = -1$. Express your answers in simplest radical form.

9. One side of a right triangle is 1 cm less than the hypotenuse. The other side is 8 cm less than the hypotenuse. Find the length of the smaller side.

10. Solve the right triangle shown below; that is, find all missing sides and angles. (You will need a calculator for this question.)

