

Equation Challenge – Record yourself typing the following document.

1. Evaluate $(a + 3b)^2 \div (-ab)$ when $a = 3$ and $b = -2$.

2. Simplify: $\frac{x^2 + 2x - 8}{x^2 + 6x + 8} \div \frac{x^2 - 5x + 6}{5x + 10}$

3. Simplify: $\frac{\frac{5}{3x-2} - 10}{\frac{4}{3x-2} + 4}$

4. Solve $V = \pi r(r + h)$ for h .

5. Graph the solution for $x + 1 < 5$.

[don't know how to make a number line in word]

$$2x - y + 3z = 9$$

6. Solve: $-x + 2y + 2z = 9$

$$x + y + z = 6$$

7. Simplify: $\sqrt[5]{32x^8y^{10}}$

8. Simplify: $\sqrt{81x^3} - 3x\sqrt{16x}$

9. Simplify: $(2^{-3}x^2y^{-1})(2^{-1}xy^2)^{-2}$

10. Solve for x : $\log_6 x + \log_6(x + 1) = 1$

11. Write $\sin^2 x - \cos^2 x$ using only cosines.