

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 number line]

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

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.

12. Given $f(x) = \frac{2x^2}{x-2}$, evaluate $f(-2)$.

13. Let $f(x) = (2x - 1)^3$, find