

Day 2 Warmup – Sidewalk Chalk Questions

Group A

1. Simplify: $5(x - 2) + 3x$
2. Factor: $x^2 - 9x + 20$
3. Simplify: $(2x^2)(-3x^3)$
4. Simplify: $\frac{\sqrt{x} + 2\sqrt{x}}{\sqrt{x}}$
5. Evaluate: $f(x) = 2x^2 - 3x + 1$; find $f(-2)$ and $f(a + 1)$
6. Simplify: $\frac{1 + \frac{1}{x}}{x}$

Group B

1. Expand: $(x - 3)^2$
2. Factor: $x^2 + 6x + 9$
3. Simplify: $\frac{2x}{x + 1} + \frac{3}{x + 1}$
4. Distribute and simplify: $\sqrt{x}(x - 2\sqrt{x})$
5. Evaluate: $f(x) = \frac{x^2 - 4}{x - 2}$; find $f(4)$ and $f(a - 2)$
6. Simplify: $\frac{1 - \frac{2}{x}}{\frac{1}{x}}$

Group C

1. Simplify: $-3(x + 4) + 2x$
2. Factor: $x^2 - 25$
3. Expand: $(x + 1)(x - 2)$
4. Simplify: $\frac{3\sqrt{x}}{6x^{-1/2}}$
5. Evaluate: $f(x) = x^2 + 1$; find $f(0)$, $f(1)$, $f(b + 1)$
6. Simplify: $\frac{1 - \frac{2}{x}}{\frac{1}{x}}$

Group D

1. Simplify: $2x(x - 3) + 4x$
2. Factor: $x^2 - 4x$
3. Simplify: $\frac{x^2 - 9}{x + 3}$
4. Simplify: $\frac{3\sqrt{x}}{6x^{-1/2}}$
5. Evaluate: $f(x) = \sqrt{x + 1}$; find $f(3)$, $f(x - 1)$
6. Simplify: $\frac{1 + x^{-1}}{1 - x^{-1}}$