Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Calculus 1: Algebra Review

Directions: Simplify the following expressions completely.

$1.) 4-2\left(7-1\right)+5$ 2.) $3[1-4\left(7-10\right)]$ 3.) $-4\left[5(-2+8-4\right)+5(11-7)]$

4.) $\frac{5}{7}-\frac{6}{13}$ 5.)$(2x-9)(5x+1)$ 6.) $(3x-4)^{2}$

7.) $(3x^{2}-x+4)^{2}$ 8.) $(2x-4)^{3}$ 9.) $\frac{x^{2}-9}{x-3}$

10.) $\frac{x^{2}-x-6}{x-3}$ 11.) $\frac{x^{2}-4x-21}{x+3}$ 12.) $\frac{12}{x^{2}+2x}+\frac{4}{x}+\frac{2}{x+2}$

13.) $3x-5<4x-6$ 14.) $5x-7>3x-4$ 15.) $-2x+5\geq 4x-3$

16.) $-4<3x+2<5$ 17.) $3+2x<4x+1<18$ 18.) $x^{2}-5x-6>0$

19.) $\left|x+3\right|>4$ 20.) $\left|3x-7\right|\leq 12$ 21.) $\left|\frac{x}{4}+5\right|<7$

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