Directions: Do your best to answer every question. Partial credit will be earned for correct work that does not result in a correct answer. Correct answers without supporting work will not receive full credit.

1. Multiply the following:
2. $(x^{2})\left(5x^{3}\right)=$
3. $\left(3x^{3}\right)\left(6x^{4}\right)=$
4. Write the following in simplest form

$$\frac{5x^{4}}{10x}$$

1. Factor the following:
2. $9x^{4}-27x^{6}$
3. $25x-125$
4. $x^{2}-3x-18$
5. $x^{2}-64$

**#’s 4 – 10 are Multiple choice but you must still show work**

1. What is  expressed in simplest form?

|  |
| --- |
|  1)  2)  3)  4)  |
|  |

1. The expression  is equivalent to

|  |
| --- |
|  1)  2)  3)  4)  |

1. What is  expressed in simplest form?

|  |
| --- |
|  1) 0 2)  3)  4)  |

1. What is  expressed in simplest form?

|  |
| --- |
|  1)  2)  3)  4)  |

1. Which expression represents  in simplest form?

|  |
| --- |
|  1) 0 2)  3)  4)  |

1. Which expression represents  in simplest form?

|  |
| --- |
|  1)  2)  3)  4)  |

1. What is the product of $\frac{x^{2}-1}{x+1} and \frac{x+3}{3x-3}$?

1) $x$ 2) $\frac{x}{3}$ 3) $x+3$ 4) $\frac{x+3}{3}$

1. Express in simplest form: 