Inspiring Greatness

INDEPENDENCE SCHOOL DISTRICT

Math Virtual Learning

Algebra 2A

Long Division Review

April 14, 2020

Lesson:

Long Division Review

Learning Target:

LT D2 I can perform polynomial division (long and synthetic) and apply the remainder theorem.

Objective:

Students will be able to long divide whole numbers.

Warm Up

Review of adding, subtracting and multiplying polynomials.

Evaluate the expressions.

1. $(-8x^3 + 5x^2 - 12x - 9) - (7x^4 + 9x^2 + 5)$
2. $-4(12x + 5)$
3. $(2x + 8)(-4x + 13)$
4. $(-x + 6)(x^2 + 7x - 3)$

Answers:

1. $-7x^4 - 8x^3 - 4x^2 - 12x - 14$
2. $-48x - 20$
3. $-8x^2 - 6x + 104$
4. $-x^3 - x^2 + 45x - 18$

Lesson: Review of Long Division

This will be a review of long division. **You will need to watch the following videos:**

Khan Academy: Long Division with Remainders

Long Division with the Remainder as a Fraction

Practice

Here are four problems for you to try. Please leave your answers in fraction form.

1. $939 \div 6$
2. $154 \div 4$
3. $716 \div 13$
4. $723 \div 11$

Worked Problem

1. $939 \div 6$

Rewrite equation ⇒

$$
\begin{array}{r}
156 \\
6\overline{)939} \\
-\underline{6} \\
33 \\
-\underline{30} \\
39 \\
-\underline{36} \\
3
\end{array}
$$

← remainder

Answer:

$$\boxed{156\frac{3}{6}}$$

Practice Answers

Here are the answers.

1. $156\frac{3}{6}$ or $156\frac{1}{2}$
2. $38\frac{2}{4}$
3. $55\frac{1}{13}$
4. $65\frac{8}{11}$

Additional Resources

Math is Fun

Additional Practice

Getting Tougher: Math is Fun

Khan Academy