

1**FIND THE QUOTIENT:**

$$(x^3 - 5x^2 - 33x - 35) \div (x + 3)$$

A) $x^2 - 2x - 39 - \frac{1}{x}$

B) $x^2 - 8x - 9 - \frac{8}{x}$

C) $-3x^2 + 4x - 45$

D) $x^2 - 2x - 27$

6**FIND THE QUOTIENT:**

$$(x^4 + 5x^3 + \dots)$$

$$\dots) \div (x + 3)$$

the mall

the zoo

Miami Beach

Niagara Falls

© Gina Wilson (All Things Algebra®), LLC, 2014**10****SOLVE THE PROBLEM:**

The width of a rectangle is $(x + 2)$.
 If its area is $x^4 + 2x^3 + 6$, find its length.

A) $x + \frac{6}{x+2}$

they were bored

B) $x^3 + \frac{6}{x+2}$

it was their anniversary

C) $x^3 + 4x^2 + 8x + 16 + \frac{38}{x+2}$

the President asked them to

D) $x + 4 + \frac{14}{x+2}$

to get on the news

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Dividing POLYNOMIALS

MATH LIB ACTIVITY



DIVIDING POLYNOMIALS

Math Lib Activity

Objective: To practice dividing polynomials using long division or synthetic division. This includes problems in which the dividend has missing powers.

Activity Directions: Print and post the ten stations around the room. Give each student the worksheet to record their work as they travel to the stations. Group students (I typically do groups of 3) and assign to a starting problem. Set the timer for 3-4 minutes (more if needed). Students solve the problem at the station, recording their work on their recording worksheet. They look for their answer and record the piece to the story on the math lib. When the timer goes off, they move to the next station.

You are able to edit each slide to change the teacher name and all story elements to personalize for your students. PowerPoint is required to edit the slides. They enjoy seeing which one of their teachers is the "star" of the story!

1 FIND THE QUOTIENT:
 $(x^3 - 5x^2 - 33x - 35) \div (x + 3)$
A) $x^2 - 2x - 39 - \frac{15}{x+3}$
B) $x^2 - 8x - 9 - \frac{8}{x+3}$
C) $-3x^2 + 4x - 45 + \frac{10}{x+3}$

6 FIND THE QUOTIENT:
 $(x^4 + 5x^3 + 6x^2 - 4) \div (x + 3)$
A) $x^3 + 2x^2 - \frac{4}{x+3}$ the mall
B) $x^3 + 8x^2 + 30x + 90 + \frac{26}{x+3}$ the zoo
C) $x^3 + 2x^2 - 4 + \frac{12}{x+3}$ Miami Beach

10 SOLVE THE PROBLEM:
The width of a rectangle is $(x + 2)$.
If its area is $x^4 + 2x^3 + 6$, find its length.
A) $x + \frac{6}{x+2}$ they were bored
B) $x^3 + \frac{6}{x+2}$ it was their anniversary
C) $x^3 + 4x^2 + 8x + 16 + \frac{38}{x+2}$ the President asked them
D) $x + 4 + \frac{14}{x+2}$ to get on the news

Dividing Polynomials "MATH LIB"!
Directions: Solve the problem at each station using long division or synthetic division. Identify the answer and fill in the blanks on the back to complete the story.

:: WRITE YOUR MATH LIB BELOW! ::
(1) _____ was (2) _____
to be (3) _____ with
(4) _____ on (5) _____
while wearing (6) _____ and sitting in/on a
(7) _____ at the (8) _____ in _____

10 Stations & Student Worksheet
(All story elements are editable!)

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