

**8th Grade, Week 4/14-4/17**

**Due: 4/20**

**Monday: No Work, Holiday**

**Tuesday:**

Math- Factoring Quadratic Expressions Review: Circuit Training Worksheet

Science- Lesson 11.1 read pgs 462-470, Work on Tour of Solar System Activity  
(due 4/27)

History- Read pg 446-461, answer #4 pg 451, #4 pg 457, and #4 pg 461 (all answers on one page please)

**Wednesday:**

Math- Review Factoring Quadratic Expressions, Difference of Squares  
Worksheet

**Thursday:** Virtual meeting at 10:00 am. Bring all your questions.

Math- Practice Test [quizizz.com/join?gc=692917](https://quizizz.com/join?gc=692917) by 8pm you can retake it until you get the score you would like. Be sure you understand the material.

Science- Lesson 11.2 read pgs 472-476, Work on Tour of Solar System Activity  
(due 4/27)

History- Watch <https://www.youtube.com/watch?v=beN4qE-e5O8> and then complete [quizizz.com/join?gc=274675](https://quizizz.com/join?gc=274675), you may use your book to help you answer questions as well.

**Friday:**

Math- Chpt 8 Test [quizizz.com/join?gc=529814](https://quizizz.com/join?gc=529814)



Mathematician: \_\_\_\_\_ Period: \_\_\_\_ Date: \_\_\_\_\_

**Circuit Training – Factoring Quadratic Expressions  $x^2 + bx + c$**

Start at #1, work the problem. Then, find your answer and work the problem underneath it (call it #2). Continue in this manner until you complete the circuit.

Answer: $(x + 5)(x - 8)$ #1 Factor $x^2 + 8x + 12$	Answer: $(x - 7)(x - 6)$ #_____ Factor $x^2 + 11x + 24$
Answer: $(x + 5)(x - 5)$ #_____ Factor $x^2 - 16$	Answer: $(x + 7)(x + 5)$ #_____ Factor $x^2 - 4x - 32$
Answer: $(x + 2)(x - 2)$ #_____ Factor $x^2 + 5x - 6$	Answer: $(x + 2)(x - 1)$ #_____ Factor $x^2 + 6x - 16$
Answer: $(x + 8)(x - 7)$ #_____ Factor $x^2 - 13x + 42$	Answer: $(x + 2)^2$ #_____ Factor $x^2 + 10x + 25$
Answer: $(x + 8)(x + 3)$ #_____ Factor $x^2 + 3x - 4$	Answer: $(x - 7)^2$ #_____ Factor $x^2 + 5x - 24$
Answer: $(x - 2)(x + 8)$ #_____ Factor $x^2 - 11x + 24$	Answer: $(x + 6)(x - 2)$ #_____ Factor $x^2 - 13x + 36$
Answer: $(x + 3)(x + 9)$ #_____ Factor $x^2 + 4x - 12$	Answer: $(x - 5)(x - 9)$ #_____ Factor $x^2 + 10x + 16$

Answer: $(x - 4)(x - 9)$ # _____ Factor $x^2 - 14x + 45$	Answer: $(x + 4)(x - 8)$ # _____ Factor $x^2 - 6x - 7$
Answer: $(x - 3)(x - 8)$ # _____ Factor $x^2 - 14x + 49$	Answer: $(x + 6)(x - 1)$ # _____ Factor $x^2 + x - 2$
Answer: $(x + 6)(x + 2)$ # _____ Factor $x^2 + 11x + 28$	Answer: $(x + 2)(x + 8)$ # _____ Factor $x^2 - 3x - 40$
Answer: $(x + 4)(x - 1)$ # _____ Factor $x^2 + 12x + 27$	Answer: $(x - 4)^2$ # _____ Factor $x^2 - 25$
Answer: $(x + 9)(x - 9)$ # _____ Factor $x^2 + x - 56$	Answer: $(x + 7)(x + 4)$ # _____ Factor $x^2 + 12x + 35$
Answer: $(x + 5)^2$ # _____ Factor $x^2 - 8x + 16$	Answer: $(x - 7)(x + 1)$ # _____ Factor $x^2 - 4$
Answer: $(x + 4)(x - 4)$ # _____ Factor $x^2 - 81$	Answer: $(x + 8)(x - 3)$ # _____ Factor $x^2 + 4x + 4$

## **Totally Tourist Tour of Our Solar System**

Attention all space travelers!

Welcome aboard Spaceship Earth. We are currently traveling at our cruising speed of 108,000 km/h.

While Spaceship Earth is relatively small, only 12,756 kilometers in diameter, it will be our only resource on this leg of our journey.

In a few minutes you will travel thousands of virtual kilometers through our planetary neighborhood. The ride will be long but, you should experience no space sickness. If you begin to feel a little queasy, just turn your eyes away from the ship's projection screen and focus on another instrument panel a few meters away.

Sit back, relax and enjoy the view! Don't forget to fill in your chart documenting your trip.

Some 'fuel' to help get you started:

**1. The Nine Planets:**

<http://nineplanets.org/>

**2. NASA Jet Propulsion Laboratory:**

<http://www.jpl.nasa.gov/solar-system/>

**3. Your Age on Other Planets**

An earth day is about 24 hours long, and an earth year is about 365 days long. Days and years on other planets are different. Some planets have very long days or years, and some are very short.

<http://www.exploratorium.edu/ronh/age/>

**4. Your Weight on Other Planets**

If you jump up, gravity pulls you back down. If you were standing on another planet and jumped up, you might be able to jump higher or, maybe not as high. The pull of gravity depends on the size of the planet.

<http://www.exploratorium.edu/ronh/weight/>

**5. StarDate Online**

[http://stardate.org/resources/ssguide/planet\\_form.html](http://stardate.org/resources/ssguide/planet_form.html)



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

# A Totally Tourist Tour of Our Solar System

	The Terrestrial Planets <small>(also known as the Rocky Planets or the Inner Planets)</small>				The Jovian Planets <small>(also known as the Gas Giants or the Outer Planets)</small>			
	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Origin of name								
Symbol used to represent planet								
Distance from sun (km)								
Distance from the sun (A.U.)								
Diameter of planet (km)								
Gravity (cm/s <sup>2</sup> )								
Density (g/cm <sup>3</sup> )								
Length of orbit (km)								
Length of 1 year on the planet (Earth days)								
Length of 1 day on the planet (Earth hours)								

	The Terrestrial Planets				The Jovian Planets			
	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Does it have an atmosphere? If so, what is it composed of?								
Temperature range (°C)								
Terrain								
Major surface features								
Does it have a ring system?								



	The Terrestrial Planets				The Jovian Planets			
	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune
Number of moons (to date)								
Name of the moons								
Other totally interesting information								
How long would it take to get there from Earth?								
Your age ("years") if you had been born there								
Your weight on the surface (lbs or kg)								



# Factoring Quadratic Expressions: Secret Word Activity

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

Class: \_\_\_\_\_

This worksheet focuses on factoring quadratic expressions which are a difference of squares. Match each question to its appropriate factors. Each set of factors are associated with a letter. The resulting letters will spell a secret quadratic math word.

\_\_\_\_\_  $x^2 - 25$

\_\_\_\_\_  $x^2 - 100$

\_\_\_\_\_  $9x^2 - 121$

\_\_\_\_\_  $x^2 - 400$

\_\_\_\_\_  $4x^2 - 169$

\_\_\_\_\_  $36x^2 - 49$

\_\_\_\_\_  $49x^2 - 36$

\_\_\_\_\_  $81x^2 - 4$

(E)  $(x + 50)(x - 50)$

(L)  $(7x + 6)(7x - 6)$

(U)  $(2x - 13)^2$

(V)  $(x + 5)(x + 5)$

(A)  $(x + 10)(x - 10)$

(T)  $(3x + 11)(6x - 11)$

(A)  $(x + 20)(x - 20)$

(C)  $(9x + 4)(9x - 4)$

(A)  $(9x + 2)(9x - 2)$

(P)  $(x + 5)(x - 5)$

(B)  $(2x + 13)(2x - 13)$

(X)  $(7x + 9)(7x - 4)$

(C)  $(6x + 7)(6x - 7)$

(R)  $(3x + 11)(3x - 11)$

