Content Connections

Math 08 - Unit 1 Review ASSIGNMENT

Number Concepts

It is assumed that you have completed the lessons and practice questions before attempting this assignment.

Name: _____

Preferred Contact:_____

***Math communication* is being assessed. *Show all work*.**

Assessment:

Emerging (1)	Developing (2)	Proficient (3)	Extending (4)
The student demonstrates an initial understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a partial understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a complete understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a sophisticated understanding of the concepts and competencies relevant to the expected learning.
Overview of curricular competency topics assessed in the assignments:			
• Understanding and application of math concepts and strategies.			
• Connecting and applying math concepts to each other and other ideas.			
• Modelling and representing problems symbolically, pictorially, graphically.			
• Communication of math thinking, ideas, language, and appropriate representation of info.			

1. Use the mental math strategy of rounding then subtracting or adding to add the following numbers. **Write down how you would change the numbers in your head for each question**.

   Ex. 16 + 42 ***16 + 40 = 56 + 2 = 52***

   a. 41 + 16 =

   b. 59 + 14 =

   c. 280 + 155 =

   d. 374 + 520 =

   e. 378 + 110 =

2. Use the **Split Strategy** to solve the following multiplication problems. **Write down how you would change the numbers in your head for each question**.

   Ex. 5 x 56 = $5 \times 50 + 5 \times 6$

   $250 + 30$

   280

   a. 12 x 8 =

   b. 4 X 32 =

   c. 15 X 11 =

   d. 7 x 18 =

3. Use the mental math strategy of your choice to subtract the following numbers. **Write down how you would change the numbers in your head for each question**.

   a. 55 – 13 =

   b. 55 – 36 =

   c. 72 – 45 =

   d. 78 – 24 =

4. List the factors for each of the numbers.

   a. 43

   b. 115

   c. 8

   d. 85

   e. 63

5. Find the Greatest Common Factor of each of these numbers. ***Show your method!***

    a. 12, 8

    b. 24, 120

    c. 14, 60

    d. 21, 42, 35

    e. 42, 70, 14

6. Find the Least Common Multiple of the following sets of numbers. ***Show your method!***

    a. 6, 15

    b. 36, 40

    c. 6, 8, 9

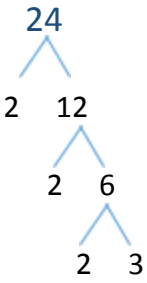
    d. 6, 10, 16

    e. 330, 75, 450

7. Two traffic lights are a block apart and start blinking at the same time. One sign blinks every 6 seconds. The other sign blinks every 14 seconds. In how many seconds will they blink together again?

8. Find the prime factors of each number. Then write the prime factorization for that number. **Use a factor tree to determine your answer**.

Ex.



Prime Factorization of 24 = 2 x 2 x 2 x 3

a. 16

b. 200

c. 144

9. What is the prime factorization of the following numbers? Answer with exponents where possible. ***Show your method!***

a. 200

b. 80

c. 1960

d. 1764

10. Use prime factorization to find the greatest common factor and the least common multiple of each set of numbers.

a. (35, 49) Prime factorization of 35:_____ of 49:_____

GCF (35, 49) = _____ LCM (35, 49) = _____

b. (80, 32) Prime factorization of 80:_____ of 32:_____

GCF (80, 32) = _____ LCM (80, 32) = _____

c. (18, 36, 15) Prime factorization of 18: _____ of 36: _____
of 15: _____

GCF (18, 36, 15) = _____ LCM (18, 36, 15) = _____

11. Bus route A arrives at its stop every 15 minutes. Bus route B arrives at its stop across the street every 40 minutes. If both buses are currently arriving at their stops, how many hours will pass before both buses arrive at the same time? ***Show your method!***

12. A fruit basket contains apples, pears, and oranges. Each basket will have the same quantity of apples, the same quantity of pears and the same quantity of oranges. ***Show your method!***

    a. If there are 10 apples, 20 pears, and 15 oranges available, how many fruit baskets can be made?

    b. How many apples, pears, and oranges are in each basket?