

1. Courtney has 36 photos to arrange on a gallery wall.

Part A

How many arrays can Courtney make with the 36 photos? List all the possible arrays.

Part B

How many factors are there for 36? Write them. What do you notice about the number of factors of 36 and the number of arrays Courtney can make with the photos?

Part C

Write all the factor pairs for 36. Is 36 prime or composite? Explain.

2. Peter wrote 4 sets of numbers. Which sets show only multiples of 6?

- 2a. 6, 12, 18, 24 Yes No
 2b. 6, 16, 26, 36 Yes No
 2c. 1, 2, 3, 6 Yes No
 2d. 6, 60, 66, 600 Yes No

3. Which statement is true?

- (A) The only factors of 3 are 3 and 1.
 (B) The only factors of 4 are 4 and 1.
 (C) The only factors of 6 are 6 and 1.
 (D) The only factors of 8 are 8 and 1.

4. Choose the correct word from the box to complete each statement.

Prime	Composite
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- 19 is a number.
 12 is a number.
 33 is a number.
 17 is a number.

5. The dividend is a multiple of 4. The divisor is a factor of 12. The quotient is a factor of 18. Choose numbers from the box to find one possible solution.

_____	÷	_____	=	_____			
Dividend		Divisor		Quotient			
2	3	4	6	8	9	12	36

6. Write 3 multiples and 3 factors for 24.

7. Corky wrote a list of factors and a list of multiples. Draw lines to match the factors with the multiples.

Factors	Multiples
9	25
7	6
5	27
2	49

8. Select all the true statements.

- A composite number has at least 3 factors.
- All prime numbers are odd.
- 99 is a prime number.
- 2 is the smallest prime number.
- All even numbers greater than 2 are composite.
- All prime numbers have 2 factors.

9. Martika says factors and multiples are related. Use the equation $6 \times 7 = 42$ to describe the relationship between factors and multiples.

10. Which lists all the factors of 25?

- (A) 1, 25
- (B) 1, 5, 25
- (C) 1, 10, 25
- (D) 1, 25, 50

11. Carter lives on a street where all the house numbers are multiples of 6. Name two possible house numbers between 601 and 650. Explain.

12. Write each number in the correct answer space to show factors of 27 and 35.

Factors of 27	Factors of 35
3 5 7 9	27 35

13. Javier says all odd numbers greater than 2 and less than 20 are prime. Find an odd number greater than 2 and less than 20 that is **NOT** prime. Explain why the number is not prime.