BECA/Huson/Precalculus: Sequences
10 September 2024

First and last name:
Section:

1.5 Pre-Quiz: Multiplication tables **Mental math - no calculators**

1. Perform the calculation. *3.OA.7 Fluently multiply and divide within 100*

   (a) $2 \times 3 =$

   (b) $4 \times 5 =$

   (c) $7 \times 9 =$

   (d) $1 \times 8 =$

   (e) $6 \times 2 =$

   (f) $9 \times 4 =$

2. Find each quotient. *3.OA.7 Use the relationship between multiplication and division*

   (a) $16 \div 2 =$

   (b) $36 \div 6 =$

   (c) $24 \div 3 =$

   (d) $72 \div 8 =$

   (e) $18 \div 9 =$

   (f) $30 \div 5 =$

3. Convert between fractions and percentages.

   (a) $\frac{1}{2} =$

   (b) $\frac{2}{5} =$

   (c) $\frac{2}{3} =$

   (d) $20\% =$

   (e) $25\% =$

   (f) $33\frac{1}{3}\% =$

4. Simplify the expression by combining like terms.

   (a) $1x + 5x =$

   (b) $14y - 7y =$

   (c) $9z - 8z + z =$

   (d) $-3y + 9y - 6y =$

   (e) $4x^2 - 6x^2 =$

   (f) $7y^2 + 12y^2 =$

5. Use the function $f(x) = -2x - 8$ to answer the questions. *F.IF.4 Interpret functions*

   (a) What is $f(0)$?

   (b) Find $f(\frac{1}{2})$

   (c) Find $f(-3)$

   (d) What is x when $f(x) = -10$?

6. Fill in the blanks to continue the patterns.

   (a) $1, 3, 5, \_\_\_\_\_, \_\_\_\_\_$

   (b) $2, 4, 8, \_\_\_\_\_, \_\_\_\_\_$

   (c) $81, 27, 9, \_\_\_\_\_, \_\_\_\_\_$

   (d) $-2, -5, -8, \_\_\_\_\_, \_\_\_\_\_$

7. Here are three patterns with their first 5 terms listed. For each pattern, describe a way to produce each new term from the previous term.

   (a) Pattern A: $4, 7, 10, 13, 16, \ldots$

   (b) Pattern B: $16, 8, 4, 2, 1, \ldots$

   (c) Pattern C: $3, -6, 12, -24, 48, \ldots$

8. Beginning with the first term of zero, write down the first 5 terms of an arithmetic sequence with a constant difference of 5.