

3.OA.D.8 Knowing Expressions and Equations

3.OA.D.8: Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

An **expression** is a part of a number sentence. It combines numbers and operation signs but does not have an equal sign.

Examples: $35 \div 7$, $65 \div 5$, $30 \div 10$

An **equation** is a number sentence. It uses an equal sign to show that the two amounts are equal.

Examples: $35 \div 7 = 5$, $65 \div 5 = 13$,
 $30 \div 10 = 3$

Write an expression out of the given problem and then write the equation to solve the problem.

1. There are 64 married women and 43 married men attending the meeting. How many married people are attending the meeting?

Answer (Expression, Equation): _____

2. There are 32 apples that are to be distributed to 8 baskets. How many apples will be put in each basket?

Answer (Expression, Equation): _____

3. There are 65 guests at the party. Later, 46 guests went home. How many guests were left at the party?

Answer (Expression, Equation): _____

4. There are 4 oranges in each of the 9 cartons. Which equation shows the number of oranges in all? _____

a. $4 + 13 = 17$

c. $4 \times 9 = 36$

b. $13 - 4 = 9$

d. $13 \times 4 = 52$

5. There are 81 students equally seated in 9 rows. How many students are there in each row? _____

a. $81 + 9 = 90$

c. $81 \times 9 = 729$

b. $81 - 9 = 71$

d. $81 \div 9 = 9$

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Answer Key

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 $30 \div 10 = 3$

Write an expression out of the given problem and then write the equation to solve the problem.

1. There are 64 married women and 43 married men attending the meeting. How many married people are attending the meeting?

Answer (Expression, Equation): $64 + 43$, $64 + 43 = 107$ *married people*

2. There are 32 apples that are to be distributed to 8 baskets. How many apples will be put in each basket?

Answer (Expression, Equation): $32 \div 8$, $32 \div 8 = 4$ *apples*

3. There are 65 guests at the party. Later, 46 guests went home. How many guests were left at the party?

Answer (Expression, Equation): $65 - 46$, $65 - 46 = 19$ *guests*

4. There are 4 oranges in each of the 9 cartons. Which equation shows the number of oranges in all? c.

a. $4 + 13 = 17$

c. $4 \times 9 = 36$

b. $13 - 4 = 9$

d. $13 \times 4 = 52$

5. There are 81 students equally seated in 9 rows. How many students are there in each row? d.

a. $81 + 9 = 90$

c. $81 \times 9 = 729$

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