

Equal Sign Detective

Use the equal-sign clue to sort math statements.

6.7.B “distinguish between expressions and equations verbally, numerically, and algebraically;”

NAME _____

DATE _____

EXPRESSION

An expression has numbers, operations, or variables, but it does not say that two amounts are equal. It names a value.

$$z \times 13$$

EQUATION

An equation says that two amounts are equal. It uses an equal sign or words such as is.

$$42 - 17 = 25$$

1 SORT _____ 8 items

Part 1 SORT: Circle the category for each item; Part 2 PROVE IT: Choose two items and explain which clue helped you sort each one.

1. $r - 12 = 20$

EXPRESSION

EQUATION

2. $9 + 4$

EXPRESSION

EQUATION

3. the product of a number and 7

EXPRESSION

EQUATION

4. $15 \div 3 = 5$

EXPRESSION

EQUATION

5. $2m + 9$

EXPRESSION

EQUATION

6. a number divided by 8

EXPRESSION

EQUATION

7. $16 - p$

EXPRESSION

EQUATION

8. the total of 11 and a number is 19

EXPRESSION

EQUATION

2

PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3

MAKE YOUR OWN

One of each

Write one new expression and one new equation.

EXPRESSION _____

EQUATION _____

CHALLENGE

Write a sentence that describes an equation, then write the equation using a variable.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	$r - 12 = 20$	EQUATION	It has an equal sign and states that two quantities are equal.
2	$9 + 4$	EXPRESSION	It has an operation but no equal sign.
3	the product of a number and 7	EXPRESSION	It names a value but does not state that two amounts are equal.
4	$15 \div 3 = 5$	EQUATION	It has an equal sign and states a true relationship.
5	$2m + 9$	EXPRESSION	It has a variable and operations but no equal sign.
6	a number divided by 8	EXPRESSION	It is a phrase that names a value, not an equal relationship.
7	$16 - p$	EXPRESSION	It has a variable and an operation but no equal sign.
8	the total of 11 and a number is 19	EQUATION	The word is states that two amounts are equal.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **EXPRESSION:** $4y + 21$
- **EQUATION:** $28 = 7 \times 4$

Challenge: A number plus 10 is 26. $n + 10 = 26$.

Items 1, 4, and 8 are equations. Items 2, 3, 5, 6, and 7 are expressions; accept equivalent original examples in Part 3 and the challenge.