

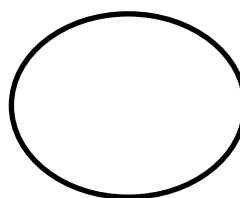
Unit 1 - TEST

Numerical Expressions

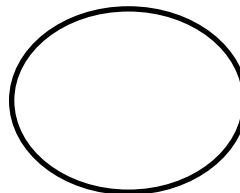
Math 5

Part 1: Determine whether each of the following is a numerical expression or not. Draw a STAR inside the circle if it is a numerical expression and a MOON if otherwise.

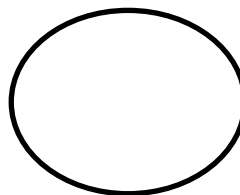
1. $(10 \div 5) \times 2 = (12 \div 6) \times 2$



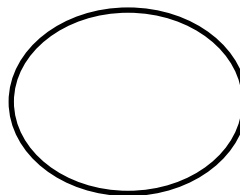
2. $4 + (3 \times 5) - 10$



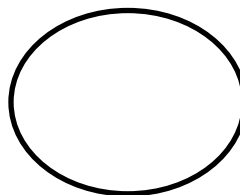
3. $6 - 3 = 15 + 25 \div 5 \times 3 - 12$



4. $y - 10 + 11 + y + 9$



5. $20 \div 4 \times (9 - 3) - 9 + 6$



Unit 1 - TEST

Numerical Expressions

Math 5

Part 2: Highlight the verbal phrases that need grouping symbols **GREEN**, and **YELLOW** if otherwise.

6. The sum of eight and ten divided by two times five.

7. Eleven plus eight minus six times two minus ten.

8. Four plus twenty divided by the product of four and two plus nine.

9. The sum of ten and two times the difference of nine and seven.

10. Ten plus two times nine minus seven.

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Numerical Expressions

Math 5

Part 3: Write the numerical expression given the verbal phrase.

11.

Eight plus four minus three times four

12.

The sum of eight and twelve divided by four.

13.

Eleven minus six plus the product of nine and three.

14.

The difference of twenty and four plus the quotient of twenty eight and four minus eleven.

15.

The product of twelve and five divided by ten plus the quotient of sixty and fifteen.

Unit 1 - TEST**Numerical Expressions****Math 5****Part 4:** Write the verbal phrase given the numerical expression.

16.

$$10 \div 2 + 5 \times 3 - 2$$

17.

$$10 - 5 \times 6 \div 15 + 3$$

18.

$$(16 + 9) \div 5 \times (16 - 9)$$

19.

$$32 - (16 \div 2) + 2 \times (10 \div 2)$$

20.

$$14 \times (10 - 8) \div (5 + 2) + 13$$

Unit 1 - TEST**Numerical Expressions****Math 5**

Part 5: Without evaluating, compare the numerical expressions below using $>$, $<$ and $=$. Draw a model that will support your answer.

21. $(13 + 5) \times 4$



$4 \times (13 + 5)$

22. $(20 + 10) \times 2$



$(20 \times 2) + (10 \times 2)$

Name: _____ Period: _____ Date: _____

Unit 1 - TEST

Numerical Expressions

Math 5

Part 6: Evaluate the given numerical expressions.

21. $23 + 7 - 4$

22. $35 - (4 + 9)$

23. $2 + (6 - 3) + 9$

24. $(45 + 7) \div (12 \div 3) + 9$

25. $[(75 - 26) \div 7] + 84 \div 12$

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Unit 1 - TEST

Numerical Expressions

Math 5

26. $15 \times 4 + (20 \div 4) - (15 \times 3) + 32$

27. $2 + 3 \times [6 \div 2 + (8 \times 5) \div 4] - 20$

28. $[8 \times (6 - 5)] - (7 + 15) \div (19 - 8)$

Unit 1 - TEST

Numerical Expressions

Math 5

Part 7: Solve the following problems.

29. A store is giving away T-shirts at a cheaper price. Originally, each shirt costs \$75. But for a limited time, they're offering a \$30 discount for every shirt bought. Tony and Nick bought 6 shirts and both decided to share the cost.

a. Write a numerical expression to represent the situation above.

b. How much money does Tony and Nick have to share?

Unit 1 - TEST

Numerical Expressions

Math 5

30. Sam won \$100,000 in the lottery. He gave his wife \$50,000 and divided the remaining amount into 4, gave 3 parts to his 3 children equally and kept 1 part for himself. He decided to keep \$10,000 in the bank. He plans to spend the rest of his money on vacation.

- a. Write a numerical expression to represent the situation above.

- b. How much money does Sam have for his planned vacation?

Unit 1 - TEST

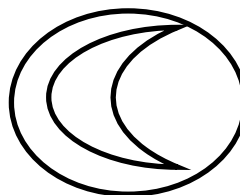
Numerical Expressions

Math 5

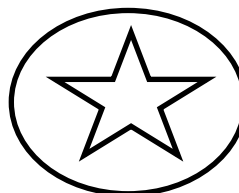
Answers:

Part 1: Determine whether each of the following is a numerical expression or not. Draw a STAR inside the circle if it is a numerical expression and a MOON if otherwise.

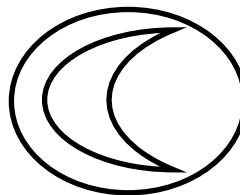
1. $(10 \div 5) \times 2 = (12 \div 6) \times 2$



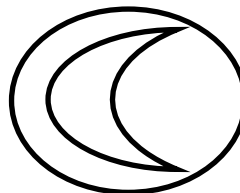
2. $4 + (3 \times 5) - 10$



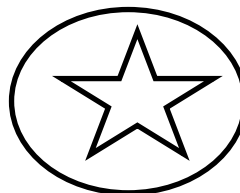
3. $6 - 3 = 15 + 25 \div 5 \times 3 - 12$



4. $y - 10 + 11 + y + 9$



5. $20 \div 4 \times (9 - 3) - 9 + 6$



Unit 1 - TEST

Numerical Expressions

Math 5

Part 2: Highlight the verbal phrases that need grouping symbols **GREEN**, and **YELLOW** if otherwise.

6. The sum of eight and ten divided by two times five.

7. Eleven plus eight minus six times two minus ten.

8. Four plus twenty divided by the product of four and two plus nine.

9. The sum of ten and two times the difference of nine and seven.

10. Ten plus two times nine minus seven.

Unit 1 - TEST**Numerical Expressions****Math 5****Part 3:** Write the numerical expression given the verbal phrase.

- | | | |
|-----|--|--|
| 11. | Eight plus four minus three times four | $8 + 4 - 3 \times 4$ |
| 12. | The sum of eight and twelve divided by four. | $(8 + 12) \div 4$ |
| 13. | Eleven minus six plus the product of nine and three. | $11 - 6 + (9 \times 3)$ |
| 14. | The difference of twenty and four plus the quotient of twenty eight and four minus eleven. | $20 - 4 + (28 \div 4) + 11$ |
| 15. | The product of twelve and five divided by ten plus the quotient of sixty and fifteen. | $(12 \times 5) \div 10 + (60 \div 15)$ |

Unit 1 - TEST**Numerical Expressions****Math 5****Part 4:** Write the verbal phrase given the numerical expression.

16.

$$10 \div 2 + 5 \times 3 - 2$$

Ten divided two plus five times three minus two.

17.

$$10 - 5 \times 6 \div 15 + 3$$

Ten minus five times six divided by fifteen plus three.

18.

$$(16 + 9) \div 5 \times (16 - 9)$$

The sum of sixteen and nine divided by five times the difference of sixteen and nine.

19.

$$32 - (16 \div 2) + 2 \times (10 \div 2)$$

Thirty-two minus the quotient of sixteen and two plus two times the quotient of ten and two.

20.

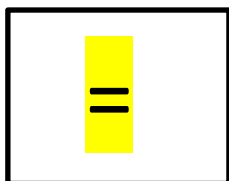
$$14 \times (10 - 8) \div (5 + 2) + 13$$

Fourteen times the difference of ten and eight divided by the sum of five and two plus thirteen.

Unit 1 - TEST**Numerical Expressions****Math 5**

Part 5: Without evaluating, compare the numerical expressions below using $>$, $<$ and $=$. Draw a model that will support your answer.

21. $(13 + 5) \times 4$

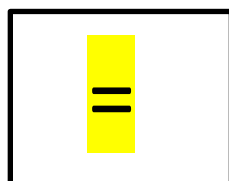


$4 \times (13 + 5)$

$(13 + 5) \times 4$ and $4 \times (13 + 5)$ have the same model

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22. $(20 + 10) \times 2$



$(20 \times 2) + (10 \times 2)$

$(20 + 10) \times 2$

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$(20 \times 2) + (10 \times 2)$

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Unit 1 - TEST

Numerical Expressions

Math 5

Part 6: Evaluate the given numerical expressions.

21. $23 + 7 - 4$

Solution: 26

22. $35 - (4 + 9)$

Solution: 22

23. $2 + (6 - 3) + 9$

Solution: 14

24. $(45 + 7) \div (12 \div 3) + 9$

Solution: 22

25. $[(75 - 26) \div 7] + 84 \div 12$

Solution: 14

Name: _____ Period: _____ Date: _____

Unit 1 - TEST

Numerical Expressions

Math 5

26. $15 \times 4 + (20 \div 4) - (15 \times 3) + 32$

Solution: 52

27. $2 + 3 \times [6 \div 2 + (8 \times 5) \div 4] - 20$

Solution: 21

28. $[8 \times (6 - 5)] - (7 + 15) \div (19 - 8)$

Solution: 6

Unit 1 - TEST**Numerical Expressions****Math 5****Part 7:** Solve the following problems.

29. A store is giving away T-shirts at a cheaper price. Originally, each shirt costs \$75. But for a limited time, they're offering a \$30 discount for every shirt bought. Tony and Nick bought 6 shirts and both decided to share the cost.

- a. Write a numerical expression to represent the situation above.

Solution: $(75 - 30) \times 6 \div 2$

- b. How much money does Tony and Nick have to share?

Solution: Tony and Nick have to pay \$135 each.

Unit 1 - TEST**Numerical Expressions****Math 5**

30. Sam won \$100,000 in the lottery. He gave his wife \$50,000 and divided the remaining amount into 4, gave 3 parts to his 3 children equally and kept 1 part for himself. He decided to keep \$10,000 in the bank. He plans to spend the rest of his money on vacation.

- a. Write a numerical expression to represent the situation above.

Solution: $(100000 - 50000) \div 4 - 100000$

- b. How much money does Sam have for his planned vacation?

Solution: He has \$2500 for his vacation.