ALBERT

Name _____ Date _____

Writing Numerical Expressions Worksheet

Grade 5 · Common Core 5.OA.A.2

> Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.

Practice

Builds the skill step by step.

1. Which expression means "add 8 and 7, then multiply by 2"?

   A. 2 × 8 + 7

   B. 2 × (8 + 7)

   C. 8 + 7 × 2

   D. (2 × 8) + 7

2. Which expression means "subtract 3 from 10"?

   A. 10 − 3

   B. 3 − 10

   C. 10 + 3

   D. 3 × 10

3. Which words describe 4 × (9 + 2)?

   A. Multiply 4 by 9, then add 2.

   B. Add 4 and 9, then multiply by 2.

   C. Multiply 9 by 2, then add 4.

   D. Add 9 and 2, then multiply by 4.

4. Without calculating the sum, tell how many times as large 3 × (18 + 932) is as 18 + 932.

5. Which expression means "divide 24 by 6, then subtract 1"?

   A. $24 \div (6 - 1)$

   B. $24 \div 6 - 1$

   C. $6 \div 24 - 1$

   D. $1 - 24 \div 6$

6. Find the value of the expression "subtract 7 from 30, then multiply by 2."

7. Sam has 5 packs of 12 pencils. He gives away 8 pencils. Which expression shows how many pencils he has now?

   A. $5 \times (12 - 8)$

   B. $5 + 12 - 8$

   C. $5 \times 12 - 8$

   D. $(5 + 12) \times 8$

8. Which words describe $20 - 3 \times 4$?

   A. Subtract 3 from 20, then multiply by 4.

   B. Multiply 3 by 4, then subtract the product from 20.

   C. Subtract 20 from the product of 3 and 4.

   D. Multiply 20 by 3, then subtract 4.

9. Find the value of the expression "add 15 and 9, then divide by 4."

10. Which expression is 2 times as large as $7 + 8$?

    A. $2 \times 7 + 8$

    B. $7 + 8 + 2$

    C. $7 + 2 \times 8$

    D. $2 \times (7 + 8)$

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On Level

Grade-level practice.

1. Which expression means "multiply the sum of 6 and 9 by 3, then subtract 4"?

   A. $3 \times 6 + 9 - 4$

   B. $3 \times (6 + 9 - 4)$

   C. $3 \times (6 + 9) - 4$

   D. $(3 \times 6 + 9) - 4$

2. Without calculating, tell how many times as large $7 \times (128 + 56)$ is as $128 + 56$.

3. Which words describe $(25 - 10) \div 5$?

   A. Divide 10 by 5, then subtract from 25.

   B. Subtract 10 from 25, then divide by 5.

   C. Subtract 25 from 10, then divide by 5.

   D. Divide 25 by 5, then subtract 10.

4. Expression A is $4 \times (350 + 25)$. Expression B is $350 + 25$. Which statement is true?

   A. A is 4 more than B.

   B. B is 4 times as large as A.

   C. A and B are equal.

   D. A is 4 times as large as B.

5. Find the value of the expression "divide the difference of 50 and 14 by 6."

6. A classroom has 4 rows of 6 desks plus 3 extra desks. Which expression shows the total number of desks?

   A. $4 \times 6 + 3$

   B. $4 \times (6 + 3)$

   C. $(4 + 6) \times 3$

   D. $4 + 6 + 3$

7. Which expression is half as large as 18×12?

   A. $18 \times 12 - 2$

   B. $(18 \times 12) \div 2$

   C. $(18 \div 2) \times (12 \div 2)$

   D. $2 \times 18 \times 12$

8. $(9 \times 4) + (9 \times 4) + (9 \times 4)$ is how many times as large as 9×4?

   _____

   _____

9. Which expression does NOT have the same value as $5 \times (2 + 6)$?

   A. $5 \times 2 + 5 \times 6$

   B. $(2 + 6) \times 5$

   C. $5 \times 2 + 6$

   D. 5×8

10. Jada wrote $3 + 5 \times 10$ for "add 3 and 5, then multiply by 10." Which expression should she write?

    A. $3 + (5 \times 10)$

    B. $3 \times 5 + 10$

    C. $10 \times 3 + 5$

    D. $(3 + 5) \times 10$

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Challenge

Multi-step and word problems that stretch it.

1. Which expression means "subtract 4 from the product of 7 and 8, then divide by 2"?

   A. $7 \times 8 - 4 \div 2$

   B. $(7 \times 8 - 4) \div 2$

   C. $7 \times (8 - 4) \div 2$

   D. $(7 \times 8) - (4 \div 2)$

2. Without calculating, tell how many times as large $12 \times (476 + 389)$ is as $3 \times (476 + 389)$.

3. Compare $6 \times (213 + 47)$ and $2 \times (213 + 47)$. Which statement is true?

   A. The first is 4 more than the second.

   B. The first is 4 times as large as the second.

   C. The first is 3 times as large as the second.

   D. They are equal.

4. Find the value of the expression "add 7 to the quotient of 48 and 6, then multiply by 3."

5. Which situation matches the expression $3 \times (12 + 5)$?

   A. 3 friends share $12 equally, and then each gets $5 more.

   B. A book costs $12, and 3 pens cost $5 each. What is the total cost?

   C. 3 books cost $12 in all, and a pen costs $5. What is the total cost?

   D. Each of 3 friends buys a $12 book and a $5 pen. How much do they spend in all?

6. Which expression is 10 times as large as 4,500 − 1,200?

   A. 10 × 4,500 − 1,200

   B. 10 × (4,500 − 1,200)

   C. 4,500 − 1,200 × 10

   D. 4,500 − 1,200 + 10

7. Expression A is (36 + 54) ÷ 3. Expression B is 36 + 54. Expression B is how many times as large as Expression A?

8. Kiara wrote 8 × 5 + 2 for "multiply 8 by the sum of 5 and 2." What should she have written?

   A. 8 × (5 + 2)

   B. 8 × 5 + 2

   C. 8 + 5 + 2

   D. 8 + 5 × 2

9. Find the value of the expression "multiply 9 by the difference of 15 and 7, then add 6."

10. Find the value of the expression "divide the sum of 64 and 16 by the difference of 12 and 2."