Number Sense, Variables, and Equality Foundations

Signed-number meaning, variables, verbal-to-symbol translation, and the earliest equation ideas.

Name _____ Date _____

32 main · 2-up grid · 2 pages

Completion Reward

Shown here as a small pack artifact, not a preview destination.

1. Which number is greater?

A. -5
B. They are equal
C. 5
D. You cannot compare them

2. What is the opposite of -8?

A. 8
B. -8
C. 0
D. -16

3. In algebra, what does a variable usually represent?

A. A special symbol with no numerical meaning
B. A word shortcut only
C. Always a negative number
D. A number whose value can vary or is not yet known

4. What does the equation 8 = 3 + 5 tell you?

A. The left side is bigger
B. The right side is a guess
C. Both sides name the same value
D. The equation is false

5. Which statement is true?

A. -5 > -2
B. -2 > -5
C. -2 = -5
D. You cannot compare them

6. What does it mean to evaluate 5n - 1 when n = 8?

A. Add n and 8 together first
B. Change 5n into 58
C. Solve for n instead of substituting
D. Replace n with 8 and simplify

7. In 5x + 2, which number is the coefficient of x?

A. 2
B. 5
C. 7
D. x

8. Which one is an equation?

A. 3x + 2 = 11
B. 3x + 2
C. x - 5
D. 7y

9. Which expression means 7 more than n?

A. n + 7
B. 7 - n
C. 7n
D. n - 7

10. Which expression means 5 less than x?

A. x - 5
B. 5 - x
C. 5x
D. x + 5

11. Which expression means the quotient of y and 4?

A. 4 / y
B. y - 4
C. 4y
D. y / 4

12. What is the best next step to solve x + 5 = 12?

A. Add 5 to both sides
B. Subtract 5 from both sides
C. Multiply both sides by 5
D. Divide both sides by 5

13. What is the best next step to solve 3x = 18?

A. Subtract 3 from both sides
B. Add 18 to both sides
C. Multiply both sides by 3
D. Divide both sides by 3

14. What is the best next step to solve 4x - 2 = 18?

A. Divide both sides by 4
B. Subtract 2 from both sides
C. Multiply both sides by 2
D. Add 2 to both sides

15. A student says 2 + 3 x 4 = 20. What is the mistake?

A. They multiplied before adding
B. They should subtract first
C. They added before multiplying
D. There is no mistake

16. A student solves x + 6 = 14 by subtracting 6 only from the left side. What is the mistake?

A. They should add 6 to both sides instead.
B. They must do the same operation to both sides to keep the equation balanced.
C. They should multiply both sides by 6 first.
D. They should change x into 6.

17. Find -3 + 9. Answer with a number.

18. Find 6 - (-2). Answer with a number.

19. Evaluate 3x + 2 when x = 4. Answer with a number.

20. Solve x + 5 = 12. Answer in the form x = ...

21. Solve 3x = 18. Answer in the form x = ...

22. Evaluate 2 + 3 x 4. Answer with a number.

23. Find -6 + (-7). Answer with a number.

24. Find -4 - 3. Answer with a number.

25. Evaluate 2x + 5 when x = -3. Answer with a number.

26. Solve x - 4 = 9. Answer in the form x = ...

27. Solve x / 5 = 3. Answer in the form x = ...

28. Evaluate 3(2 + 4) - 5. Answer with a number.

29. Evaluate 18 / 3 + 2. Answer with a number.

30. Solve 3x - 2 = 16. Answer in the form x = ...

31. Solve x / 2 + 3 = 9. Answer in the form x = ...

32. Solve 2x + 3 = 11. Answer in the form x = ...