

NYS Next Generation
Learning Standards
Grade 6
Comprehensive Evaluation

Math topics assessed in this evaluation include:

- RP: Rations & Proportional Relationships
NS: Number System
EE: Expressions & Equations
G: Geometry
SP: Statistics & Probability

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*This material is independently developed and is not affiliated with
or endorsed by the New York State Education Department.*

1. *NY-6.RP.1*

A fruit bowl contains 4 apples and 3 bananas. Write a sentence using ratio words (like "to" or "for every") to describe the relationship between apples and bananas.

2. *NY-6.RP.2*

A car travels 150 miles on 5 gallons of gas. What is the unit rate in miles per gallon?

3. *NY-6.RP.3*

A store sells 3 shirts for \$45. At this rate, how much would it cost to buy 5 shirts?

4. *NY-6.NS.1*

A recipe calls for $\frac{3}{4}$ of a cup of flour for one batch of cookies. If you have $1\frac{1}{2}$ cups of flour, how many full batches can you make?

5. *NY-6.NS.2*

Divide: $4836 \div 12$.
Show your work.

6. *NY-6.NS.3*

Evaluate the following expression:
 14.5×3.2 .

7. *NY-6.NS.4*

Find the greatest common factor (GCF) of 12 and 18. Then, use the GCF and the distributive property to rewrite the sum of $12 + 18$.

8. *NY-6.NS.5*

What negative number represents a temperature of 5 degrees below zero?

9. *NY-6.NS.6*

Plot the number -4 on the number line.

10. *NY-6.NS.7*

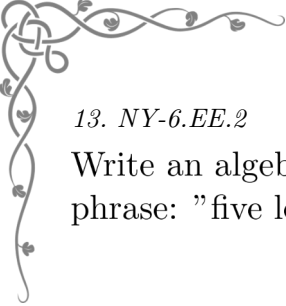
Order the numbers -5, 2, 0, and -1 from least to greatest. Then, find the absolute value of -15.

11. *NY-6.NS.8*

Graph the points (2, 3) and (2, 8) on the coordinate plane. What is the distance between these two points?

12. *NY-6.EE.1*

Write out what 4^3 means using repeated multiplication, and then solve for the final value.



13. NY-6.EE.2

Write an algebraic expression for the phrase: "five less than a number y ."

14. NY-6.EE.3

Apply the distributive property to generate an equivalent expression for $3(x + 4)$.

15. NY-6.EE.4

Are the expressions $2x + x$ and $3x$ equivalent? Explain how you know.

16. NY-6.EE.5

Which value from the set $\{3, 5, 7\}$ makes the equation $x + 7 = 12$ true?

17. NY-6.EE.6

Write an expression to represent the total cost of buying n notebooks if each notebook costs \$2.

18. NY-6.EE.7

Solve the equation: $x + 15 = 25$.

19. NY-6.EE.8

The speed limit (s) on a highway is 55 miles per hour. Write an inequality to show the legal speeds, and graph it on a number line.

20. NY-6.EE.9

If you earn \$10 per hour, your total pay (p) for (h) hours worked is $p = 10h$. Which variable is the independent variable, and which is the dependent?

21. NY-6.G.1

Find the area of the triangle below.

22. NY-6.G.2

Find the volume of a rectangular prism with edge lengths of $\frac{1}{2}$ cm, $\frac{3}{4}$ cm, and 2 cm.

23. NY-6.G.3

A rectangle is drawn on a coordinate plane with vertices at $(0,0)$, $(4,0)$, $(4,3)$, and $(0,3)$. What is the length of the side connecting $(0,0)$ and $(4,0)$?

24. NY-6.G.4

Look at the net of the cube below. If each side length is 3 inches, what is the total surface area of the folded cube?

25. NY-6.G.5

Draw an area model (a square on a grid) to prove why 16 is a perfect square.

26. NY-6.SP.1

Is "How old are the students in my school?" a statistical question? Explain why or why not.

27. NY-6.SP.2

Look at the dot plot of test scores. How would you describe the shape and center of the data?

28. NY-6.SP.3

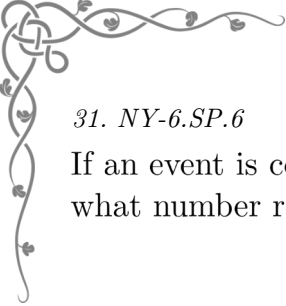
What is the difference between finding the mean (a measure of center) and the range (a measure of variation) of a data set?

29. NY-6.SP.4

Create a dot plot to display the following data: 1, 2, 2, 3, 4, 4, 4, 5.

30. NY-6.SP.5

Find the range and the median for this data set: 12, 15, 20, 22, 30.

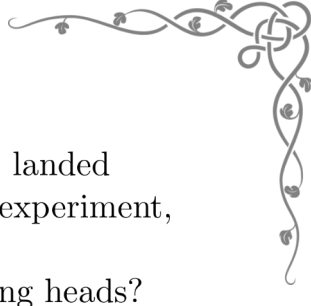


31. NY-6.SP.6

If an event is completely impossible, what number represents its probability?

32. NY-6.SP.7

You flipped a coin 50 times and it landed on heads 26 times. Based on this experiment, what is the relative frequency (approximate probability) of getting heads?



33. NY-6.SP.8

What is the theoretical probability of rolling a 4 on a standard 6-sided die?