



NYS Next Generation
Learning Standards
Grade 7
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-7.RP.1*

A turtle walks $\frac{1}{2}$ mile in $\frac{1}{4}$ of an hour.
What is the turtle's unit rate
in miles per hour?

2. *NY-7.RP.2*

A recipe uses 2 cups of sugar for every 3 cups of
flour. What is the constant of proportionality,
and what equation relates the sugar (s) to the
flour (f)?

3. *NY-7.RP.3*

A pair of shoes costs \$40.
If the sales tax is 8%, what is the
total cost of the shoes including tax?

4. *NY-7.NS.1*

What is the additive inverse of 8?
Show how adding 8 and its additive
inverse results in zero.

5. *NY-7.NS.2*

Use long division to convert the
fraction $\frac{3}{8}$ into a decimal.
Show your work.

6. *NY-7.NS.3*

The temperature was -2.5 degrees.
It increased by 5.2 degrees, then dropped 4.1
degrees.
What was the final temperature?

7. NY-7.EE.1

Expand the expression $4(2x - 3)$ and then add $5x$ to your result. What is the simplified expression?

8. NY-7.EE.2

A jacket is 20% off its price (p). Explain why the expressions $p - 0.20p$ and $0.80p$ both represent the sale price and mean the same thing.

9. NY-7.EE.3

A carpenter has a board $8\frac{1}{2}$ feet long. He cuts off 3 pieces that are each 1.25 feet long. How many feet of the board are left?

10. NY-7.EE.4

You buy 3 notebooks and a \$5 pen. The total cost is \$14. Write and solve an equation in the form $px + q = r$ to find the notebook cost.

11. NY-7.G.1

On a map, 1 inch represents 50 miles. If two cities are 3.5 inches apart on the map, what is the actual distance between them in miles?

12. NY-7.G.2

Can you draw a triangle with side lengths of 2 cm, 3 cm, and 6 cm? Explain if this creates a unique triangle, multiple triangles, or no triangle.

13. NY-7.G.3

If you slice a solid cylinder horizontally (parallel to its base), what 2D shape is created by the slice?

14. NY-7.G.4

A circular garden has a radius of 4 meters. Calculate both the circumference and the area of the garden.

15. NY-7.G.5

Two angles are supplementary. If one angle measures 45 degrees, what is the measure of the other angle?

16. NY-7.G.6

Find the volume of a right rectangular prism with a length of 5 cm, a width of 3 cm, and a height of 10 cm.

17. NY-7.SP.1

Using a given box-plot of quiz scores, identify the median and calculate the interquartile range (IQR). Are there any outliers?

18. NY-7.SP.2

Compare two dot plots showing plant heights with and without fertilizer. How much do the two data distributions visually overlap?

19. NY-7.SP.3

Using the mean from a random sample of 7th graders, what comparative inference can you draw about the average books read by the entire population?

20. NY-7.SP.4

You flip a coin and roll a 6-sided die. Draw a tree diagram for the sample space. What is the probability of getting "Tails" and rolling a 4?

21. NY-7.SP.5

The probability of rain tomorrow is 0.85. Describe how likely it is to rain using the words "unlikely," "neither unlikely nor likely," or "likely."

22. NY-7.SP.6

If you roll a standard 6-sided die 300 times, about how many times should you expect to roll a 5? Will it be exactly that number?

23. NY-7.SP.7

A class has 12 girls and 14 boys. If one student is chosen at random to be the class leader, what is the probability that a girl is chosen?

24. NY-7.SP.8

You toss a paper cup 50 times. It lands open-end up 10 times, open-end down 8 times, and on its side 32 times. What is the approximate probability that it lands on its side?