

GED

Mathematical Reasoning

Practice Test 01



Watch



Practice



Master

Instructions

Work Through This Test Carefully

This practice test is designed to help prepare for the GED Mathematical Reasoning test.

The focus is on mathematical reasoning, problem solving, and applying core concepts rather than calculation speed.

Each problem presents an independent challenge and can be solved without reference to the other problems.

How to Use the QR Codes

Detailed solution videos are published on YouTube over time.

- **Printed version:** Scan the QR code to open the corresponding video.
- **Digital version:** Click the QR code to open the corresponding video.

The videos can be used both while working through the problems and for review afterward.

Watch Detailed Solutions on YouTube



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Questions

- 1** Which number is equal to 5 thousandths?
- 1) 0.5
 - 2) 0.05
 - 3) 0.005
 - 4) 0.0005
- 2** A gym has m members. A second gym has 15 fewer than twice that number. Which expression represents the number of members in the second gym?
- a) $2m - 15$
 - b) $2(m - 15)$
 - c) $15 - 2m$
 - d) $m - 30$
- 3** Maria has \$75 to spend. A shipping fee is \$10. Each notebook costs \$6. The inequality $10 + 6x \leq 75$ represents the situation. What is the maximum number of notebooks Maria can buy?
- a) 12
 - b) 11
 - c) 13
 - d) 10
- 4** $3(x - 4) + 5 = x + 13$
- Solve the equation for x .
- a) 5
 - b) 10
 - c) 8
 - d) 12

- 5** A jacket costs \$84.75. The sales tax rate is 7%.
What is the tax, in dollars? Round to the nearest cent.
- a) 5.91
 - b) 5.94
 - c) 5.93
 - d) 6.03
- 6** A company has 120 employees. Thirty employees are managers.
What is the ratio of managers to employees who are not managers?
- a) 1:3
 - b) 1:4
 - c) 3:1
 - d) 1:2
- 7** The value $\sqrt{200}$ lies between two consecutive integers.
Which two consecutive integers contain $\sqrt{200}$?
- a) 13 and 14
 - b) 14 and 15
 - c) 15 and 16
 - d) 16 and 17
- 8** A printing company charges \$8.00 for the first 12 pages. Each additional page costs \$0.65.
What is the total cost to print a 30-page document, in dollars?
- a) 23.50
 - b) 20.70
 - c) 21.70
 - d) 19.70

- 9** The angles of a triangle are in the ratio 4:7:9.
What is the measure of the largest angle?
- a) 60°
 - b) 45°
 - c) 81°
 - d) 72°
- 10** A ladder forms a right triangle with a wall. The base is 9 feet from the wall, and the height is 12 feet.
What is the length of the ladder, in feet?
- a) 15
 - b) 18
 - c) 21
 - d) 25
- 11** What is the decimal equivalent of $4\frac{5}{6}$?
- a) 4.83
 - b) 4.75
 - c) 4.56
 - d) 4.86
- 12** A snack costs 25 cents. During a promotion, 4 snacks cost 80 cents.
How much money is saved when buying 12 snacks, in cents?
- a) 15
 - b) 30
 - c) 90
 - d) 60

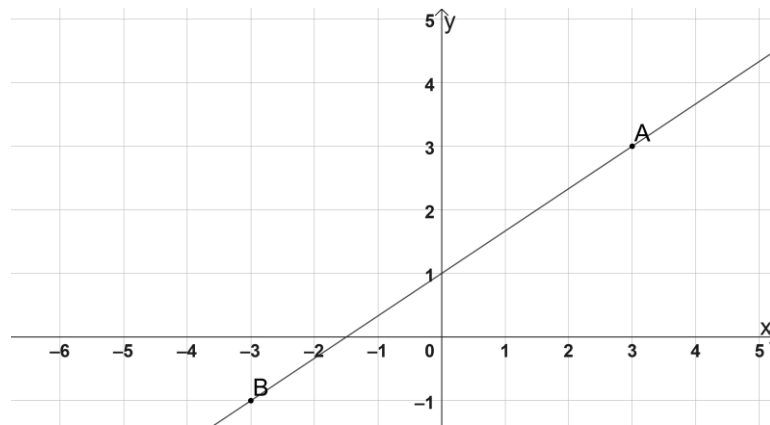
- 13** A company calculates the cost of x items using the formula $c(x) = 3x - 4$.
What is the cost when $x = -3$, in dollars?
- a) -9
 - b) -13
 - c) 13
 - d) 5
- 14** If $a = 10$ and $b = -4$, what is the value of $5a - 2b^2$?
- a) -82
 - b) -30
 - c) 18
 - d) 90
- 15** Simplify the expression $(4x - 3)(2x + 5)$.
- a) $8x^2 + 14x - 15$
 - b) $8x^2 - 4x - 15$
 - c) $8x^2 + 4x - 15$
 - d) $8x^2 - 10x - 15$
- 16** At 6:00 a.m., the temperature is -8 degrees. At 10:00 a.m., the temperature is 4 degrees.
The temperature increases at a constant rate.
What is the temperature at 4:00 p.m., in degrees?
- a) 24
 - b) 28
 - c) 20
 - d) 22

Questions 17 through 19 are based on the following set.

Set A contains the numbers 47, 83, 59, 72, 91, 66 and 54.

- 17** What is the range of Set A?
- a) 45
 - b) 91
 - c) 44
 - d) 37
- 18** What is the median of Set A?
- a) 59
 - b) 66
 - c) 72
 - d) 83
- 19** What is the arithmetic mean of Set A, rounded to the nearest integer?
- a) 67
 - b) 68
 - c) 66
 - d) 69

Questions 20 through 22 are based on the following graph.



20 What are the coordinates of point A?

- a) (3, 1)
- b) (1, 3)
- c) (-3, -1)
- d) (3, 3)

21 What is the slope of the line?

- a) $\frac{3}{2}$
- b) $\frac{2}{3}$
- c) $-\frac{2}{3}$
- d) 3

22 What is the equation of the line?

- a) $y = -\frac{2}{3}x + 1$
- b) $y = \frac{3}{2}x + 1$
- c) $y = \frac{2}{3}x + 1$
- d) $y = \frac{2}{3}x - 1$

- 23** A delivery driver drives 95 minutes per day. The driver works 6 days per week for 3 weeks.
- What is the total time the driver spends driving, in hours and minutes?
- a) 26 hours, 30 minutes
 - b) 31 hours, 30 minutes
 - c) 30 hours, 30 minutes
 - d) 28 hours, 30 minutes
- 24** A bus arrives every 9 minutes. A train arrives every 12 minutes. Both arrive at the same time now.
- After how many minutes do they arrive at the same time again?
- a) 36
 - b) 24
 - c) 18
 - d) 108
- 25** A customer orders $2\frac{1}{2}$ pounds of cheese. The scale reads 2.85 pounds.
- How much cheese must be removed to reach the correct amount, in pounds?
- a) 0.25
 - b) 0.30
 - c) 0.35
 - d) 0.45
- 26** A freelance designer earns a flat fee of \$1,200. The designer also earns a 12% bonus on any amount above \$5,000. The total project budget is \$15,000.
- What is the total earnings of the designer, in dollars?
- a) 1,200
 - b) 2,400
 - c) 3,600
 - d) 4,200

- 27** The Great Pyramid of Cholula has a square base with side length 450 meters and a height of 66 meters.

The volume of a pyramid is given by

$$V = \frac{1}{3}Bh$$

where B is the area of the base and h the height of the pyramid.

What is the approximate volume of the pyramid, in cubic meters?

- a) 1,485,000
 - b) 8,910,000
 - c) 13,365,000
 - d) 4,455,000
- 28** What is the product of $(6 \cdot 10^5)(5 \cdot 10^{-2})$? Write your answer in scientific notation.
- a) $3 \cdot 10^4$
 - b) $30 \cdot 10^3$
 - c) $3 \cdot 10^3$
 - d) $3 \cdot 10^2$
- 29** Five pizzas are each cut into 12 equal slices. After a party, $\frac{1}{3}$ of one pizza, $\frac{1}{6}$ of another pizza, $\frac{1}{4}$ of another pizza, and $\frac{1}{2}$ of another pizza remain.
- How many slices of pizza are left, in slices?
- a) 13
 - b) 15
 - c) 19
 - d) 17

30Simplify the expression $4\sqrt[3]{27x^5}$.

- a) $12x^3$
- b) $4x\sqrt[3]{27x^2}$
- c) $12x\sqrt[3]{x^2}$
- d) $36x\sqrt[3]{3x^2}$

Answer Key

1: c) 0.005	11: a) 4.83	21: b) $\frac{2}{3}$
2: a) $2m - 15$	12: d) 60	22: c) $y = \frac{2}{3}x + 1$
3: d) 10	13: b) -13	23: d) 28 hours, 30 minutes
4: b) 10	14: c) 18	24: a) 36
5: c) 5.93	15: a) $8x^2 + 14x - 15$	25: c) 0.35
6: a) 1:3	16: d) 22	26: b) 2,400
7: b) 14 and 15	17: c) 44	27: d) 4,455,000
8: d) 19.70	18: b) 66	28: a) $3 \cdot 10^4$
9: c) 81°	19: a) 67	29: b) 15
10: a) 15	20: d) (3, 3)	30: c) $12x\sqrt[3]{x^2}$

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