



Grade 7 Math Practice — Grade 7 (Set 5)

Core Skills Edition | Curriculum-aligned worksheet

Integers & Rational Numbers

Add, subtract, multiply, and divide integers.

1. Calculate: $(-9) + (8)$

- A) -2
- B) -1
- C) 0
- D) 1

2. Calculate: $(-9) \div (-1)$

- A) -9
- B) -8
- C) -7
- D) -6

3. Calculate: $(-9) \times (-1)$

- A) 8
- B) 9
- C) 10
- D) -9

4. Which is greater: -3 or -7 ?

- A) -7
- B) -3
- C) Equal
- D) Cannot compare

5. Order from least to greatest: $-2, -5, 0, -1, 3$

- A) $-5, -1, 0, -2, 3$
- B) $3, -2, 0, -1, -5$
- C) $-1, -5, 0, -2, 3$
- D) $0, -1, -5, -2, 3$



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6. At 6 AM it was 7°C . By 2 PM it rose 13°C . What was the temperature?

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Proportional Reasoning

Use ratios and proportions to solve problems.

7. The ratio of cats to dogs is 3:5. There are 40 animals total. How many cats?

- A) 12
- B) 15
- C) 18
- D) 24

8. If 7 oranges cost \$33, what is the cost of 1 orange?

- A) \$4.21
- B) \$4.71
- C) \$5.21
- D) \$5.71

9. A map scale is 1 cm : 5 km. Two cities are 8 cm apart on the map. Actual distance?

- A) 13 km
- B) 40 km
- C) 45 km
- D) 80 km

10. Solve: $x/4 = 7$

- A) $x = 11$
- B) $x = 28$
- C) $x = 3$
- D) $x = 1.75$

11. A recipe serves 4. You need to serve 10. The recipe calls for 2 cups flour. How much flour do you need?



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Geometry

Area of composite shapes, angle relationships.

12. Two supplementary angles add to:

- A) 90°
- B) 180°
- C) 270°
- D) 360°

13. A circle has radius 3 cm. Its circumference is approximately: (use $\pi \approx 3.14$)

- A) 17
- B) 18.8
- C) 21
- D) 28.3

14. The area of a circle with radius 3 cm is approximately:

- A) 23
- B) 28.3
- C) 33
- D) 18.8

15. Angles on a straight line sum to:

- A) 90°
- B) 180°
- C) 270°
- D) 360°

16. An L-shaped room can be split into two rectangles: $8\text{m} \times 5\text{m}$ and $4\text{m} \times 3\text{m}$. Find the total area.

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Patterns & Equations*Write equations from patterns. Plot points.***17.** A pattern starts at 5 and adds 3 each time. Write the rule.

- A) $n + 5$
- B) $3n + 2$
- C) $3n + 5$
- D) $5n + 3$

18. From the table: $x=1 \Rightarrow y=4$, $x=2 \Rightarrow y=7$, $x=3 \Rightarrow y=10$. Rule?

- A) $y = 3x$
- B) $y = 3x + 1$
- C) $y = x + 3$
- D) $y = 4x$

19. If $y = 2x + 3$, what is y when $x = 5$?

- A) 3
- B) 5
- C) 7
- D) 13

20. A line passes through (0, 4). What is the y-intercept?

- A) 0
- B) 4
- C) 4
- D) Unknown

21. Complete the table for $y = 3x + 1$: $x = 0, 1, 2, 3, 4$. Plot the points and describe the pattern.



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Data & Probability

Calculate probability and interpret data displays.

22. Two dice are rolled. $P(\text{sum} = 7) = ?$

- A) $\frac{1}{6}$
- B) $\frac{1}{12}$
- C) $\frac{5}{36}$
- D) $\frac{6}{36}$

23. A spinner has: 40% blue, 35% red, 25% green. In 200 spins, expected blue landings?

- A) 40
- B) 60
- C) 80
- D) 100

24. The IQR of $\{3, 5, 7, 9, 11, 13, 15\}$ is:

- A) 4
- B) 6
- C) 8
- D) 10

25. Which measure is most affected by outliers?

- A) Mean
- B) Median
- C) Mode
- D) Range

26. Explain the difference between experimental and theoretical probability with an example.



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