



Grade 7 Math Practice — Grade 7 (Set 3)

Core Skills Edition | Curriculum-aligned worksheet

Integers & Rational Numbers

Add, subtract, multiply, and divide integers.

1. Calculate: $(-8) + (3)$

- A) -6
- B) -5
- C) -4
- D) -3

2. Calculate: $(-8) \div (-3)$

- A) -6
- B) -5
- C) -4
- D) -3

3. Calculate: $(-8) \times (-3)$

- A) 23
- B) 24
- C) 25
- D) -24

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 22°C . By 2 PM it rose 11°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 5 oranges cost \$29, what is the cost of 1 orange?

- A) \$5.3
- B) \$5.8
- C) \$6.3
- D) \$6.8

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 9 cm. Its circumference is approximately: (use $\pi \approx 3.14$)

- A) 55
- B) 56.5
- C) 59
- D) 254.3

14. The area of a circle with radius 9 cm is approximately:

- A) 249
- B) 254.3
- C) 259
- D) 56.5

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) $1/6$
- B) $1/12$
- C) $5/36$
- D) $6/36$

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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