

7th Grade Math Quiz

(continued)

12 The scale on a model car is 1:24. If the model is 8 inches long, how long is the real car?

- A. 96 inches
- B. 192 inches
- C. 32 inches
- D. 288 inches

13 What is the surface area of a cube with sides of 3 cm?

- A. 9 sq cm
- B. 27 sq cm
- C. 54 sq cm
- D. 36 sq cm

14 Solve: $x/4 = 9$

- A. $x = 13$
- B. $x = 36$
- C. $x = 2.25$
- D. $x = 5$

15 A store marks up items by 40%. If a jacket costs the store \$50, what is the selling price?

- A. \$60
- B. \$65
- C. \$70
- D. \$90

7th Grade Math Quiz — Answer Key

1. B \$5.25

Cost per apple: $\$2.25 / 3 = \0.75 . Seven apples: $7 \times \$0.75 = \5.25 .

2. C 30

15% of 200 = $0.15 \times 200 = 30$. You can also think: 10% = 20, 5% = 10, so 15% = 30.

3. C 30%

Decrease = $\$50 - \$35 = \$15$. Percent decrease = $(15/50) \times 100 = 30\%$.

4. C 1/2

Even numbers on a die: 2, 4, 6. That is 3 out of 6 possible outcomes = $3/6 = 1/2$ or 50%.

5. B $x = 6$

Subtract 5 from both sides: $2x = 12$. Divide both sides by 2: $x = 6$. Check: $2(6) + 5 = 17$.

6. B 31.4 cm

Circumference = $\pi \times \text{diameter} = 3.14 \times 10 = 31.4$ cm.

7. C 4

A negative divided by a negative equals a positive. $-12 / -3 = 4$.

8. C 115 degrees

Supplementary angles add up to 180 degrees. $180 - 65 = 115$ degrees.

9. A 3/12 or 1/4

Total marbles: $4 + 3 + 5 = 12$. Blue marbles: 3. Probability = $3/12 = 1/4$ or 25%.

10. C 78.5 sq cm

Area = $\pi \times \text{radius squared} = 3.14 \times 5 \times 5 = 3.14 \times 25 = 78.5$ square centimeters.

11. C 3/5

$0.6 = 6/10$. Simplify by dividing both by 2: $3/5$.

12. B 192 inches

1:24 means the real car is 24 times longer. $8 \times 24 = 192$ inches (or 16 feet).

13. C 54 sq cm

A cube has 6 faces. Each face: $3 \times 3 = 9$ sq cm. Total: $6 \times 9 = 54$ sq cm.

14. B $x = 36$

Multiply both sides by 4: $x = 9 \times 4 = 36$. Check: $36/4 = 9$.

15. C \$70

40% of \$50 = $0.40 \times 50 = \$20$ markup. Selling price = $\$50 + \$20 = \$70$.