

ACT Mathematics Practice Questions

1. If $x = -5$, then $|x - 7| =$

- A: -12
- B: 2
- C: 12
- D: -2

2. Solve and simplify: $\frac{2}{3} \times \frac{3}{5} \times \frac{5}{10} \times \frac{6}{8} =$

- A: $\frac{1}{5}$
- B: $\frac{1}{2}$
- C: $\frac{3}{20}$
- D: $\frac{1}{4}$

3. If Dave drives at a steady speed of 50 miles per hour, how long will it take him to drive 10 miles?

- A: 12 minutes
- B: 10 minutes
- C: 15 minutes
- D: 30 minutes

4. $(x^3)^9 =$

- A: x^{12}
- B: x^{27}
- C: x^3
- D: x^6

5. John will be x in 7 years. How old was he last year?

- A: $x + 7$
- B: $1 - x - 7$
- C: $x + 8$
- D: $x - 8$

6. Find the slope: $4x - 5y = 20$

- A: $\frac{5}{4}$
- B: $\frac{4}{5}$
- C: $-\frac{4}{5}$
- D: $-\frac{5}{4}$

7. Rex is four times as old as Ted. If the sum of their ages is 30, how old is Ted?

- A: 5
- B: 8
- C: 10
- D: 6

8. On a real number line, $x = -4$ and $y = 7$. What is the length of the line XY?

- A: 11
- B: 3
- C: -11
- D: 7

9. Reggie has enough flour to last for 40 days. If he increases his use of flour by 25%, however, how many days' worth of flour will he have?

- A: 30 days
- B: 28 days

C: 32 days
D: 48 days

10. If $x = 3$ and $y = -1$, then $3x^2 + 2xy - 5 = ?$
A: 18
B: 24
C: 12
D: 16

ACT Mathematics Practice Test Questions Answer Key

1. C. Remember that absolute value is the distance from zero on a real number line, and therefore cannot be zero.
2. C. Fractions are multiplied by multiplying numerators by numerators and denominators by denominators. Some of the fractions in this problem can be simplified.
3. A. Since there are 60 minutes in an hour, this problem can be solved with the following equation:
 $50/60 = 10/x$
4. B. In this kind of problem, the exponents must be multiplied together.
5. D. The target age can be found by subtracting first seven and then one year from x .
6. B. The equation form for slope is $y = mx + b$, in which m is slope.
7. D. The ratio of Rex's age to Ted's age is 4:1; the sum of their ages can be divided by the total number of units in this ratio, 5. This indicates that Rex is 24 and Ted is 6.
8. A. Measure the length of the line by adding the respective distances of each value from zero.
9. C. Reggie will be using flour at $5/4$ the normal rate. Since the amount of flour used is inversely proportional to the amount of time it takes to go through the flour, the duration can be found by multiplying 40 by the inverse of $5/4$, or $4/5$.
10. D. Substitute the given values into the equation, and then remember to observe the order of operations.

Examrace