

CPTs Arithmetic Example Items

The Arithmetic test measures skills in three categories. The first, operations with whole numbers and fractions, includes addition, subtraction, multiplication, division, and recognizing equivalent fractions and mixed numbers. The second category, operation with decimals and percents, involves addition, subtraction, multiplication, and division as well as percent problems, equivalencies, and estimation problems. The last category, applications and problem solving, includes questions on rate, percent, and measurement problems, geometry problems, and distribution of quantity into its fraction parts.

1. $3\frac{1}{2} + 4\frac{2}{3} =$

A. $\frac{5}{6}$

B. $7\frac{3}{5}$

C. $7\frac{5}{6}$

D. $8\frac{1}{6}$

2. $9 \times 4\frac{2}{3} =$

A. 42

B. $1\frac{13}{14}$

C. $\frac{14}{27}$

D. $36\frac{2}{3}$

3. $3\frac{3}{5} \div 2\frac{1}{2} =$

A. $7\frac{1}{5}$

B. 9

C. $1\frac{2}{3}$

D. $1\frac{11}{25}$

4. All of the following are equivalent to 40 percent of N **EXCEPT**:

A. $0.4 N$

B. $\frac{40}{100} N$

C. $40 N$

D. $\frac{2}{5} N$

5. $.4999 \times 16.00027$ is approximately equal to
- A. .08
B. .8
C. 8
D. 80
6. What is 40% of 85?
- A. 21.25
B. 36
C. 34
D. 212.5
7. 15 is what percent of 60?
- A. 90%
B. 25%
C. 40%
D. 9%
8. John learned that after overhauling the carburetor in his car he would use only 80% as much gas. Last month, before overhauling his carburetor, he used 125 gallons of gas. Assuming that John drives the same number of miles next month, how many gallons of gas can he expect to save next month after overhauling his carburetor?
- A. 20
B. 25
C. 45
D. 100
9. Debra took a test that consisted of 150 questions and she got 78% correct. How many questions did Debra miss on the test?
- A. 28
B. 33
C. 24
D. 117
10. Sarah spends $\frac{1}{4}$ of her income for transportation, $\frac{1}{6}$ of her income for food, and $\frac{1}{3}$ of her income for rent and utilities. What fractional part of Sarah's income is left for all of her other expenses?
- A. $\frac{1}{4}$
B. $\frac{3}{13}$
C. $\frac{1}{8}$
D. $\frac{3}{4}$

CPTs Elementary Algebra Example Items

The Elementary Algebra test measures skills in three categories. The first, operations with integers and rational numbers, includes computations with integers and negative rationals, the use of absolute values, and ordering. The second category, operations with algebraic expressions, tests skills with the evaluation of simple formulas and exponents, simplifying algebraic fractions, and factoring. The third category tests skills in equation solving, inequalities, and word problems. These questions include solving systems of linear equations, the solution of quadratic equations by factoring, solving verbal problems presented in algebraic context, geometric reasoning, the translation of written phrases into algebraic expressions, and graphing.

1. Evaluate $|-26 + 10| =$

A. 4

B. -16

C. 16

D. 36

2. Evaluate: $\frac{3^2 + 2^2 \cdot 5 - \sqrt{25}}{8 - 4 \div 2 + 2}$

A. 3

B. 15

C. 6

D. 24

3. Evaluate: $-\frac{3}{5} \left[\frac{2}{3} - \frac{1}{2} \left(\frac{3}{4} - \frac{1}{2} \right) \right] =$

A. $-\frac{1}{40}$

B. $-\frac{3}{5}$

C. $-\frac{17}{40}$

D. $-\frac{13}{40}$

4. Factor: $15x - 3$

A. $12x$

B. $3(5x - x)$

C. $3(5x - 1)$

D. $3(5x - 3)$

12. If $x^2 - 2x - 8 = 0$, then $x =$

A. -4 or 2

B. -2 or 4

C. -1 or 8

D. -8 or 1

13. Simplify: $\frac{6x^3 - 4x^2 + 10x}{2x} =$

A. $6x^3 - 4x^2 + 5$

B. $3x^3 - 2x^2 + 5x$

C. $-x^2 + 10$

D. $3x^2 - 2x + 5$

14. Simplify: $\frac{x^2 - x - 6}{x^2 - 2x - 3} =$

A. $\frac{x-6}{x-3}$

B. $\frac{x+2}{x+1}$

C. $\frac{2}{x}$

D. $\frac{(x+3)(x-2)}{(x-3)(x+1)}$

15. Choose the equation that is equivalent to the verbal description:

The difference between a number, x , and five less than twice the number is 9.

A. $x - (5 - 2x) = 9$

B. $x + (5 - 2x) = 9$

C. $x - (2x - 5) = 9$

D. $x + 2x - 5 = 9$

Answer Key to Sample CPTs Questions

Reading Skills	Sentence Skills	Arithmetic Skills	Elementary Algebra Skills
1. B	1. C	1. D	1. C
2. A	2. C	2. A	2. A
3. D	3. A	3. D	3. D
4. C	4. C	4. C	4. C
5. C	5. B	5. C	5. C
6. D	6. B	6. C	6. A
7. A	7. C	7. B	7. C
8. B	8. C	8. B	8. D
9. A	9. B	9. B	9. A
10. C	10. B	10. A	10. A
11. C	11. A	11. A	11. C
12. D	12. D	12. D	12. B
		13. B	13. D
		14. A	14. B
		15. A	15. C