

## MathPrep

### Sample Pre-Algebra Test

#### Pre-Algebra - Attempt 5

 You are logged in as Bill Yates (Logout)

1 Simplify.

$$(7 \cdot 6^2 - 7 \cdot 3^2) \div (3 + 4)$$

Choose one answer.

- a. 189
- b. 261
- c. 243
- d. 27

2 Which of the following does not go through the origin?

Choose one answer.

- a.  $y = -5x$
- b.  $y = 3x + 4$
- c.  $y = x^2$
- d.  $y = x$
- 

3 Evaluate  $a + b - c$  when  
 $a = -1$ ,  $b = -12$ , and  $c = 6$ .

Choose one answer.

- a. -7
- b. 5
- c. -19
- d. 17
- 

4 Two polygons are similar. The ratio of corresponding sides is 2 to 3. Which of the following ratios is not possible for corresponding sides?  
Choose one answer.

- a.  $\frac{26}{39}$
- b.  $\frac{15}{37.5}$
- c.  $\frac{60}{90}$
- d.  $\frac{24}{36}$

5 Simplify.

$$2\frac{7}{17} + 6\frac{13}{17}$$

Choose one answer.

- a.  $10\frac{3}{17}$
- b.  $9\frac{3}{17}$
- c.  $9\frac{4}{17}$
- d.  $8\frac{3}{17}$

6 Evaluate.

$$|-15|$$

Choose one answer.

- a. 15
- b.  $\frac{1}{15}$
- c.  $-\frac{1}{15}$
- d. -15

7 Solve the following equation. Express your answers to the nearest hundredth.

$$\frac{20}{1} \times \frac{75}{1} \times \frac{1}{60} = ?$$

Choose one answer.

- a. 0.04
- b. 0.25
- c. 25
- d. 4

8 A child is admitted to the hospital and his weight is 8 pounds 8 ounces. How many kg does he weigh?

Choose one answer.

- a. 19.4 kilograms
- b. 8.8 kilograms
- c. 3.9 kilograms
- d. 4 kilograms

$$9 \sqrt{36} =$$

Choose one answer.

- a. 1296
- b. 18
- c. 6
- d. 72

10 The hypotenuse of a triangle is 30 inches, and the length of 1 leg is 18 inches. What is the length of the third leg?

Choose one answer.

- a. 21
- b. 24
- c. 30
- d. 18

$$11 x^3 = ?$$

Choose one answer.

- a.  $x \times 3$
- b.  $x \times x \times x$
- c.  $x + x + x$
- d.  $3x$

12 Four times a number minus twelve is thirty. What is the value of the number?

Choose one answer.

- a. 10.5
- b. 38
- c. 4.5
- d. -3.75

13 Joe Smith would like 500 business cards printed. 10 business cards fit on an 8 1/2 x 11 sheet. How many sheets are needed to produce 500 business cards?

Choose one answer.

- a. 50 sheets
- b. 500 sheets
- c. 40 sheets
- d. 5,000 sheets

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## Sample Results



You are logged in as Bill Yates (Logout)

### Pre-Algebra

#### Review of Attempt 5

Started on:	Tuesday, October 2 2007, 10:42 PM
Completed on:	Tuesday, October 2 2007, 10:56 PM
Time taken:	13 mins 42 secs
Raw score:	10/13 (77 %)
Grade:	10 out of a maximum of 13

<b>Categorical Results</b>	<b>Correct/Total</b>
Math Prep	10 / 13
Math Prep: Pre-Algebra	10 / 13
Math Prep: Pre-Algebra: Exponents, radicals, and polynomials	2 / 2
Math Prep: Pre-Algebra: Fractions	2 / 2
Math Prep: Pre-Algebra: Geometry and data analysis	1 / 1
Math Prep: Pre-Algebra: Linear equations	0 / 2
Math Prep: Pre-Algebra: Measurement, proportion, and percent	1 / 2
Math Prep: Pre-Algebra: Signed numbers and variables	2 / 2
Math Prep: Pre-Algebra: Whole Numbers	2 / 2

### Question results

1 Simplify.

$$(7 \cdot 6^2 - 7 \cdot 3^2) \div (3 + 4)$$

Choose one answer.

- a. 189 **x**
- b. 261 **x**
- c. 243 **x**
- d. 27 **✓** Correct!

Correct

2 Which of the following does not go through the origin?

Choose one answer.

- a.  $y = -5x$  **x**
- b.  $y = 3x + 4$  **✓**
- c.  $y = x^2$  **x** Remember the origin is 0,0.
- d.  $y = x$  **x**

Incorrect

3 Evaluate  $a + b - c$  when  $a = -1$ ,  $b = -12$ , and  $c = 6$ .

Choose one answer.

- a. -7 **x**
- b. 5 **x**
- c. -19 **✓** Correct!
- d. 17 **x**

Correct

4 Two polygons are similar. The ratio of corresponding sides is 2 to 3. Which of the following ratios is not possible for corresponding sides?

Choose one answer.

- a.  $\frac{26}{39}$  **x**
- b.  $\frac{15}{37.5}$  **✓** Correct!
- c.  $\frac{60}{90}$  **x**
- d.  $\frac{24}{36}$  **x**

Correct

5 Simplify.

$$2\frac{7}{17} + 6\frac{13}{17}$$

Choose one answer.

- a.  $10\frac{3}{17}$  **x**
- b.  $9\frac{3}{17}$  **✓** Correct!
- c.  $9\frac{4}{17}$  **x**
- d.  $8\frac{3}{17}$  **x**

Correct

6 Evaluate.

$$|-15|$$

Choose one answer.

- a. 15 ✓ Correct!
- b.  $\frac{1}{15}$  ✗
- c.  $-\frac{1}{15}$  ✗
- d. -15 ✗

Correct

7 Solve the following equation. Express your answers to the nearest hundredth.

$$\frac{20}{1} \times \frac{75}{1} \times \frac{1}{60} = ?$$

Choose one answer.

- a. 0.04 ✗
- b. 0.25 ✗
- c. 25 ✓ Correct!
- d. 4 ✗

Correct

8 A child is admitted to the hospital and his weight is 8 pounds 8 ounces. How many kg does he weigh?

Choose one answer.

- a. 19.4 kilograms ✗
- b. 8.8 kilograms ✗
- c. 3.9 kilograms ✓
- d. 4 kilograms ✗

Incorrect. You need to convert the ounces to a decimal value before you divide by 2.2 kilograms.

Incorrect

9  $\sqrt{36} =$

Choose one answer.

- a. 1296 ✗
- b. 18 ✗
- c. 6 ✓ Correct!
- d. 72 ✗

Correct

10 The hypotenuse of a triangle is 30 inches, and the length of 1 leg is 18 inches. What is the length of the third leg?

Choose one answer.

a. 21 ✗

Correct!  $A^2 = B^2 + C^2$

$$C^2 = A^2 - B^2$$

b. 24 ✔  $C^2 = \sqrt{30^2 - 18^2}$

$$C^2 = \sqrt{900 - 324}$$

$$C^2 = \sqrt{576} C^2 = 24$$

c. 30 ✗

d. 18 ✗

Correct

11  $x^3 = ?$

Choose one answer.

a.  $x \times 3$  ✗

b.  $x \times x \times x$  ✔ Correct!

c.  $x + x + x$  ✗

d.  $3x$  ✗

Correct

12 Four times a number minus twelve is thirty. What is the value of the number?

Choose one answer.

a. 10.5 ✔

b. 38 ✗

c. 4.5 ✗ [4n-12=30] You should add 12 to both sides of the equation. Then, you should divide both sides of the equation by 4.

d. -3.75 ✗

Incorrect

13 Joe Smith would like 500 business cards printed. 10 business cards fit on an 8 1/2 x 11 sheet. How many sheets are needed to produce 500 business cards?

Choose one answer.

a. 50 sheets ✔ Correct!

b. 500 sheets ✗

c. 40 sheets ✗

d. 5,000 sheets ✗

Correct