

Summer Math Packet

Immaculate Conception School

7th Grade Pre-Algebra Blue to 8th Grade Pre-Algebra Blue



Name: _____

Write the letter for the correct answer in the blank at the right of each question.

1. Find the perimeter of a rectangle with length 8 inches and width 9 inches.
A 17 inches B 34 inches C 36 inches D 72 inches 1. _____
2. Find the area of a triangle with base 10 meters and height 14 meters.
F 140 m² G 70 m² H 48 m² J 24 m² 2. _____
3. The perimeter of a triangle is 36 feet. One side is 12 feet and one side is 15 feet. Find the third side.
A 63 feet B 27 feet C 9 feet D 3 feet 3. _____
4. The area of a rectangle is 48 square yards. Its width is 4 yards. Find the length.
F 6 yards G 12 yards H 24 yards J 44 yards 4. _____

For Questions 5–8, solve each equation.

5. $2m + 2 = 4m$
A 2 B 1 C 0 D -2 5. _____
6. $8 + 3x = 29 + 2x$
F 21 G 4.2 H 0 J -7.2 6. _____
7. $2(r + 5) = 22r$
A -2 B $\frac{1}{2}$ C all numbers D $\emptyset$ 7. _____
8. $2(9s + 3) = 6(3s + 1)$
F 0 G 6 H all numbers J $\emptyset$ 8. _____
9. Twice a number is 4 more than the number. Choose the equation to find the unknown number, then solve.
A $2x + 4 = x; x = -4$ C $2x = x + 4; x = 4$
B $2x + x = 4; x = \frac{4}{3}$ D $2x = x + 4; x = -2$ 9. _____

For Questions 10 and 11, write an inequality for each sentence.

10. A number minus 14 is more than 35.
F $14 - n \geq 35$ G $n - 14 \geq 35$ H $n - 14 < 35$ J $n - 14 > 35$ 10. _____
11. Six times a number is at most 91.
A $6k \leq 91$ B $6k \geq 91$ C $6k < 91$ D $6k > 91$ 11. _____

Standardized Test Practice

DATE _____

PERIOD _____

SCORE _____

(Chapters 1-2)

Part 1: Multiple Choice

Instructions: Fill in the appropriate circle for the best answer.

1. Find the value of $6(9 - 4) \div (13 - 8)$. (Lesson 1-1)

A 6

B 9

C 14

D 23

1. A B C D

2. Identify the numerical expression for the product of nine and seven. (Lesson 1-1)

F $9 + 7$ G $9 \div 7$ H $7 - 9$ J 9×7

2. F G H I

3. Which expression represents seven less than the quotient of sixteen and four? (Lesson 1-2)

A $7 + (16 \times 4)$ B $(16 \div 4) - 7$ C $16(7 - 4)$ D $(16 - 4) \times 7$

3. A B C D

4. Rewrite $(3 - 4) + 7$ using the Associative Property. (Lesson 1-3)

F $3(-4 + 7)$ G $3 - 4 + 7$ H $3 + (-4 + 7)$ J $7 + (3 - 4)$

4. F G H I

5. The statement $abc = cab$ is an example of which property of multiplication? (Lesson 1-3)

A commutative

B inverse

C identity

D associative

5. A B C D

6. Which relation is a function? (Lesson 1-5)

F $(2, 3), (2, 4), (3, 1), (4, 2)$ G $(7, 8), (6, 3), (9, 5), (5, 1)$ H $(0, 6), (3, 4), (0, 1), (2, 9)$ J $(5, 7), (2, 3), (8, 4), (2, 6)$

6. F G H I

- For Questions 7-9, evaluate each expression. (Lessons 2-1 through 2-4)

7. $19 - 38$

A -21

B -19

C 47

D 57

7. A B C D

8. $-11 + |-4|$

F -15

G -7

H 14

J 44

8. F G H I

9. $-12(-3)$

A -36

B -15

C 15

D 36

9. A B C D

10. Evaluate the expression $a + b - c$ if $a = -1$, $b = 3$, and $c = 6$. (Lesson 2-3)

F 10

G 8

H -2

J -4

10. F G H I

5 Standardized Test Practice

SCORE _____

(Chapters 1-5)

Part 1 Multiple Choice

Instructions: Fill in the appropriate circle for the best answer.

1. If the value of $y - 7$ is 18, what is the value of y ? (Lesson 1-2)
 A 35 B 25 C 11 D 7 1. ☐ A ☐ B ☐ C ☐ D
2. Evaluate $x + y - z$ if $x = 3$, $y = 2$, and $z = 4$. (Lesson 2-3)
 F -3 G 1 H 5 J 9 2. ☐ F ☐ G ☐ H ☐ J
3. Solve $\frac{x}{-7} = -196$. (Lesson 4-4)
 A 1372 B 28 C -28 D -189 3. ☐ A ☐ B ☐ C ☐ D
4. Find the value of the expression $60 \div (15 - 3) \cdot 5$. (Lesson 1-1)
 F 0 G 1 H 5 J 25 4. ☐ F ☐ G ☐ H ☐ J
5. Evaluate the expression $|a| - 2|b|$ if $a = 3$ and $b = -6$. (Lesson 2-1)
 A 15 B 9 C -9 D -15 5. ☐ A ☐ B ☐ C ☐ D
6. Find the sum of $3\frac{4}{5}$ and $2\frac{7}{10}$. Write in simplest form. (Lesson 3-6)
 F $6\frac{5}{10}$ G $6\frac{1}{2}$ H $5\frac{11}{15}$ J $5\frac{1}{2}$ 6. ☐ F ☐ G ☐ H ☐ J
7. How much less is $\frac{7}{16}$ than $2\frac{1}{4}$? (Lesson 3-6)
 A $1\frac{13}{16}$ B $1\frac{3}{4}$ C $1\frac{1}{2}$ D $\frac{15}{16}$ 7. ☐ A ☐ B ☐ C ☐ D
8. Write $-9\frac{3}{5}$ as a decimal. (Lesson 3-1)
 F -9.3 G -9.35 H -9.6 J -15 8. ☐ F ☐ G ☐ H ☐ J
9. Solve the equation $-16 = x - 4$. (Lesson 4-3)
 A -20 B -12 C -4 D 20 9. ☐ A ☐ B ☐ C ☐ D
10. Evaluate the expression $c - a + b$ if $a = -7$, $b = 2$, and $c = -4$. (Lesson 2-3)
 F -9 G -5 H -1 J 5 10. ☐ F ☐ G ☐ H ☐ J
11. Which equation represents *seven less than the quotient of a number and 3 is 6*? (Lesson 4-6)
 A $7 - \frac{n}{3} = 6$ C $\frac{n}{3} - 7 = 6$
 B $3n - 7 = 6$ D $\frac{n}{3} - 6 = 7$ 11. ☐ A ☐ B ☐ C ☐ D

**Diagnostic and
Placement
Grade 8**

Name _____

Date _____

This test contains 30 multiple-choice questions. Work each problem in the space on this page. Select the best answer. Write the letter of the answer on the blank at the right.

1 Which set of numbers is in order from greatest to least?

A $4, \frac{1}{4}, \frac{2}{3}, 0.04, 40$

C $40, 4, \frac{2}{3}, \frac{1}{4}, 0.04$

B $0.04, \frac{1}{4}, \frac{2}{3}, 4, 40$

D $\frac{1}{4}, \frac{2}{3}, 0.04, 4, 40$

2 Charlene bought her friends lunch. The bill came to \$52.80 before Charlene added an 18% service tip. How much did she add for the service tip?

F \$4.75

H \$9.50

G \$5.70

J \$10.20

3 Randy is playing a number game. Beginning with the number 8, he adds 4, multiplies by 5, and then divides by -10 . He then subtracts 2. What number does he find at the end of the game?

A -8

B -6

C 6

D 8

4 Which multiplication expression is shown by the picture below?



F $\frac{1}{5} \times \frac{1}{4}$

H $\frac{2}{20} \times \frac{3}{20}$

G $\frac{2}{5} \times \frac{3}{5}$

J $\frac{2}{5} \times \frac{3}{4}$

5 Olivia orders 4 ham sandwiches at the deli. The total amount was \$30.52. How much did each sandwich cost?

A \$7.63

B \$7.83

C \$12.63

D \$122.08

- 14 Look at the sequence in the table.

Position	Value of Term
1	3
2	7
3	11
4	15
5	19
n	

Which expression can find the n th term in the sequence where n represents the position of the term?

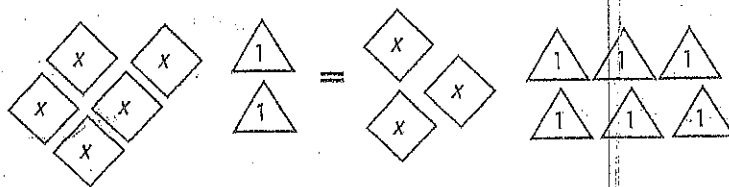
- F $n + 3$ H $4n + 2$
G $4n - 1$ J $3n - 2$

- 15 Which statement best describes the pattern shown below?

66, 62, 58, 54, 50, 46, 42, 38

- A Divide by 4 to get the next term
B Add 4 to get the next term
C Subtract 4 to get the next term
D Multiply by 4 to get the next term

- 16 The picture models the equation $5x + 2 = 3x + 6$.



What value of x makes the equation true?

- F $x = 1$ H $x = 4$
G $x = 2$ J $x = 6$

- 17 In $\triangle ABC$, the measure of $\angle A$ is 33° and the measure of $\angle C$ is 90° . What is the measure of $\angle B$?

- A 17° B 57° C 137° D 147°

Triangles have 180° .