Grade 6 Summer Review Packet
2019 -2020

WEEK – 1

NAME: _____

DUE: THE FIRST DAY OF SCHOOL

The problems in this packet are designed to help you review topics from previous mathematics courses that are essential to your success in Integrated Math I. **You are expected to bring this completed packet to class on the first day of school.** In addition, this packet will count as part of your first quarter grade. **Upon returning, you will be ASSESSED on the content of this packet**. All contents outlined in the packet are Grade 6 objectives. Neatly **SHOW YOUR WORK** on a separate sheet of paper.

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Summer Packet G 6 entering G 7 week1

Collection: **Private**

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Q1: Select the expression that is written in expanded form and is equivalent to $4(2n + 3p)$.

A $20np$

B $6n + 7p$

C $8n + 3p$

D $8n + 12p$

Q2: Evaluate the expression $2\left(4 + 6^2\right) - 20 \div 4$ and type your answer in the box. Use paper to show your work.

Q3: Evaluate.

- $4 + 2(7) =$
- $6^2 + 8 \times 3 =$
- $3(2 + 5) - 5(3) + 8 =$
- $24 - 6 + 12 \div 2 \times 3 =$

Q4: Complete the table.

Exponential Form	Expanded Form	Standard Form
	$3 \times 3 \times 3 \times 3$	
	$2 \times 2 \times 2 \times 2 \times 2$	
$(1.75)^2$		
$\left(\frac{1}{4}\right)^3$		

Q5: Match each word form with its algebraic expression.

The sum of 10 and b, times 8	⟷	
The product of 8 and b, taken from 10	⟷	
10 added to the product of 8 and b	⟷	
8 times the difference of 10 and b	⟷	
10 less than the product of 8 and b	⟷	

ANSWER CHOICES

- $8(b - 10)$
- $10 - (8 + b)$
- $8b - 10$
- $10 \times 8 + b$
- $10 + 8b$
- $8(10 + b)$
- $8(10 - b)$
- $10 - 8b$

Q6: Which answer choice uses the greatest common factor and the distributive property to rewrite $6a + 18b$ in factored form?

A $3(2a + 6b)$

B $6(a + 3b)$

C $ab(6 + 18)$

D $3(2a + 18b)$

E $6(a + 18b)$

Q7: Fill in each blank to make the equation true.

a. $73 -$ ☐ $+ 24 = 73$

b. ☐ $+ 35 - 35 = 59$

c. $k + m -$ ☐ $= k$

Q8: Solve $a + 12 = 36$.

A 3

B 24

C 48

D 432

Q9: Use the greatest common factor and the distributive property to write an equivalent expression in factored form. Type your expression in the box.

$9d + 6e =$ ☐

Q10: Emma made 25 cookies. She gave c cookies to her mom. Then, she split the remaining cookies evenly among 4 friends. Which expressions represent this scenario? Select all that apply.

A $(25 + c) \div 4$

B $25 \div 4 - c$

C $\frac{25 - c}{4}$

D $\frac{25 - 4}{c}$

E $25 - c \div 4$

F $(25 - c) \div 4$

Q11: Solve $9 = \frac{d}{3}$.

$d =$ ☐

Q12: Consider the expressions $12 + 4y$ and $4(y + 3)$.

Part A

What is the value of each expression when $y = 5$?

When $y = 5, 12 + 4y =$ ☐ .

When $y = 5, 4(y + 3) =$ ☐ .

Part B

Explain why the expressions $12 + 4y$ and $4(y + 3)$ are equivalent.

Q13: Type an algebraic expression for each of the verbal expressions.

a. 8 less than the product of 3 and j

b. The quotient of f and the quantity g increased by 11

Q14: Write an expression showing $a \div (b + 2)$ as a fraction. Type your answer in the box.

$a \div (b + 2) \ =$

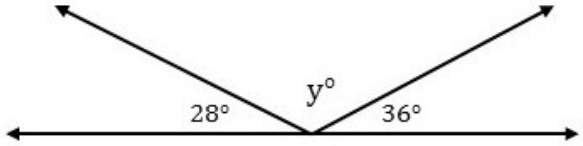
Q15: Rewrite each expression in standard form, using the fewest number of symbols and characters possible and type them into the boxes.

$2 \cdot 3 \cdot 7 \cdot q \cdot t$

$12c \cdot 4d$

$9fg \cdot 6jk$

Q16: The sketch shows three adjacent angles.



Part A

Which equation can be used to determine the value of y?

A $180^\circ = 36^\circ - 28^\circ - y^\circ$

B $360^\circ = 28^\circ + 36^\circ + y^\circ$

C $36^\circ + y^\circ + 28^\circ = 90^\circ$

D $28^\circ + y^\circ + 36^\circ = 180^\circ$

Part B

What is the value of y?

$y =$

Q17: Luca runs 8 miles each week.

a. Which table correctly represents this scenario?

A

Number of Weeks	Total Number of Miles
0	0
1	8
2	16
3	24
4	32

B

Number of Weeks	Total Number of Miles
0	8
1	16
2	24
3	32
4	40

C

Total Number of Miles	Number of Weeks
0	0
1	8
2	16
3	24
4	32

D

Total Number of Miles	Number of Weeks
0	8
1	16
2	24
3	32
4	40

b. Type an equation to represent the total number of miles Luca runs given the number of weeks. Let m represent the total number of miles Luca runs and let w represent the number of weeks.

c. What is the dependent variable? Select your answer from the drop-down list. Explain your reasoning.

a

d. Determine the number of weeks it takes Luca to run 96 miles.

It takes Luca _____ weeks to run 96 miles.

a.
- Number of weeks
- Total number of miles