STAPLE

Name _____ Score: $\frac{\quad}{22}$

Gillespie
Course 1: Learning Check Ch2d
Introduction to Algebra

Directions: When working each of the following questions, be sure to show all work.

1) Evaluate the expression to find the missing values in the tables.

z	$8 \div z$
1	8
2	4
4	2

2) Write the phrase as a numberical or algebraic expression.

t divided by 5

$\frac{t}{5}$

3) Write the phrase as a numberical or algebraic expression.

n times 5

$5n$

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Problems 4-7: Write an expression for the missing value in the table.

(hint: Steps for an Arithmetic Sequence)
step1: What is the outside Pattern?
step2: Multiply the outside pattern with a term.
step3: How do you get to the value next to the term used in step 2?

4) Evaluate the expression to find the missing values in the tables.

Term	Value
1	4
2	5
3	6
n	n + 3

5) Evaluate the expression to find the missing values in the tables.

Term	Value
3x 1 +1	4
3x 2 +1	7
3x 3 +1	10
3x n +1	3n + 1

+3 +3

6) Evaluate the expression to find the missing values in the tables.

Term	Value
1	4
2	9
3	14
n	5n − 1

7) Evaluate the expression to find the missing values in the tables.

Term	Value
2 x2	4
3 x 3	9
4 x 4	16
n xn	n^2

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8) A triangle has a base of 6 inches. The table shows the area of the triangle for different heights. Write an expression that can be used to find the area of the triangle when its height is h inches.

(hint: area of triangle = $\frac{1}{2}bh$ *OR* $\frac{bh}{2}$)

Base (in.)	*Height (in.)*	*Area (in^2)*
6 ×	1 ÷ 2 =	3
6 ×	2 ÷ 2 =	6
6 ×	3 ÷ 2 =	9
6 ×	h ÷	→ $\frac{6h}{2}$ → $3h$

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Problems 9-12: Solve each equation. Check your answers

(hint: 5 Steps)
step1: locate the variable
step2: isolate the variable
step3: inverse operation
step4: keep the equation balanced
step5: check your answer.

9) $b + 4 = 15$

$-4 \quad -4$

$b = 11$

$11 + 4 = 15$

$15 = 15$ ✓

$\boxed{b = 11}$

10) $60 = 30 + t$

$\boxed{t = 30}$

11) $b \times 10 = 30$

$\boxed{b = 3}$

12) $\frac{30}{6} = \frac{6n}{6}$

$5 = n$

$30 = 6(5)$

$30 = 30$ ✓

$5 = n$

$\boxed{n = 5}$

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NO CALCULATORS BEYOND THIS POINT

13) $5 - 5$

0

14) $20 \div 20$

1

15) 4×2

8

16) $9 \div 3$

3

17) $10 + 10$

20

18) $7 + 6$

13

19) $14 \div 14$

1

20) $8 + 7$

15

21) $3 - 3$

0

22) $4 - 2$

2