

# 7 PLUS Unit Review

## Unit 1

Name: \_\_\_\_\_

### Absolute Value

1. Fill in the Blank. Absolute Value is a number's distance from 0 on a number line. Absolute value is never negative because distance is never negative.

2.  $|-8| = 8$

3.  $-|9| = -9$

4.  $-|-23| = -23$

### Operation Rules Matching

1. B Change to an addition problem by using "keep, change, opposite". Then use addition rules to simplify.

- A. Addition
- B. Subtraction
- C. Multiplication
- D. Division

2. C D If signs are the same, the answer is positive. If signs are different, the answer is negative.

3. A If signs are the same, add and keep original sign. If signs are different, subtract absolute values and take sign of higher absolute value.

Integer Operations. SHOW YOUR WORK on the back or separate sheet of paper!

1.  $-12 + 30 = 18$

6.  $-4 - 9 = -13$

11.  $-88 \div (-4) = 22$

2.  $12 \div -4 = -3$

7.  $-3 \times (-13) = 39$

12.  $-7 \times 14 = -98$

3.  $19 - (-22) = 41$

8.  $69 \div (-3) = -23$

13.  $-28 - (-19) = -9$

4.  $17 + (-66) = -49$

9.  $-19 + (-40) = -59$

10.  $-15 - (-90) = 75$

5.  $6 \times (-10) = -60$

$$\begin{array}{r} 516 \\ 166 \\ -17 \\ \hline 49 \end{array}$$

$$\begin{array}{r} 214 \\ \times 7 \\ \hline 98 \end{array}$$

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## Math 7 PLUS—Study Guide

- 1) Explain why  $|-16|$  and  $|16|$  are equal.

both have a distance of 16 units away from 0

- 2) What property does the following expression represent?  $10 + -10$ , what does this equal?

additive inverse

0

- 3) Model **AND** solve using heaps and holes, a number line, or integer chips:  $-5 + 2$

-- + +



4)  $-15 - 18 = -33$

5)  $-14 - (-25) = 11$

6)  $-16 + 4 - 8 + (-6) = -24$   
 $-12 - 8 + -6$   
 $-20 + -6$

7)  $-|-9 + 3| = -6$   
 $-|-6|$

8)  $(8)(-3) = -24$

9)  $\frac{-72}{-9} = 8$

- 10) The product of three negative integers is negative. True or False? Justify your response with an example.

True  
 $- \cdot - = + \cdot - = -$   
 $3- = \text{odd so negative}$

- 11) Penelope solved the following problem:  $(-5)(-7) = -35$ . Correct her mistake and explain why it is wrong.

$$- \cdot - = +$$

$$+35$$

- 12) Circle the division problem that is NOT equal to the following:  $-\left(\frac{24}{6}\right)$

~~$$\frac{-24}{6}$$~~

~~$$\frac{24}{-6}$$~~

$$\frac{-24}{-6}$$

- 13) Sean's golf scores for four games are:  $-2, 4, -5$ , and  $1$ . Order his golf scores from least to greatest.

$-5, -2, 1, 4$

- 14) During a possession in a football game, the Redskins gained 11 yards, lost 15 yards, gained 5 yards, gained 6 yards, and lost 17 yards. At the end of the possession, how many yards had they lost or gained? (Write an equation and solve.)

$$+11 - 15 + 5 + 6 - 17$$

$$-4 + 5 + 6 - 17$$

$$1 + 6 - 17$$

$$7 - 17$$

$$-10$$

$$-32 + 22$$

$$-10$$

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15) A submarine is cruising at 30 m below sea level. The submarine rises 22 m. What is the submarine's new location?

$$-30 + 22 = -8$$

16)  $[3 \cdot (10 + 5)] - 5$

$$\begin{array}{r} [3 \cdot (15)] - 5 \\ 45 - 5 \\ 40 \end{array}$$

17)  $17 - 5 \cdot 10 \div 2 + 12$

$$\begin{array}{r} 17 - 50 \div 2 + 12 \\ 17 - 25 + 12 \\ -8 + 12 \\ 4 \end{array}$$

Evaluate each expression if  $m = -3$  and  $y = 9$

18)  $40m - y$

$$\begin{array}{r} 40 \cdot -3 - 9 \\ -120 - 9 \\ -129 \end{array}$$

19)  $4m + 2y - 12$

$$\begin{array}{r} 4 \cdot -3 + 2 \cdot 9 - 12 \\ -12 + 18 - 12 \\ 6 - 12 \\ -6 \end{array}$$

Complete the chart. Each box is worth one point. Think ☺

	List the coefficient(s)	List the constant(s)	# of terms
20) $7n + 8 - 2y$	7, -2	8	3