

Name: Answer KeyDate: 9/25

Review – Integers and Expressions

Simplify all problems unless noted otherwise.

<p>1. $-2y + 3(y - 8) =$ $\underline{-2y} + \underline{3y} - 24 =$ $y - 24$</p> <p>ANSWER: <u>$y - 24$</u></p>	<p>2. $-8y + 6ab + 7 - 3ab =$ $3ab - 8y + 7$</p> <p>ANSWER: <u>$3ab - 8y + 7$</u></p>	<p>3. $-7x + 3(2 + x) =$ $\underline{-7x} + 6 + \underline{3x} =$ $-4x + 6$</p> <p>ANSWER: <u>$-4x + 6$</u></p>
<p>4. $5(-3c + 4d) + 2(-3c) - (-8d) =$ $\underline{-15c} + \underline{20d} - \underline{6c} + 8d =$ $\underline{-21c} + \underline{20d} + \underline{8d} =$ $-21c + 28d$</p> <p>ANSWER: <u>$-21c + 28d$</u></p>	<p>5. $\frac{-18}{-9} = 2$</p> <p>ANSWER: <u>2</u></p>	<p>6. $4 - (-7) =$ $4 + 7 =$ 11</p> <p>ANSWER: <u>11</u></p>
<p>7. $-9 + (-14) =$ $-9 - 14 =$ -23</p> <p>ANSWER: <u>-23</u></p>	<p>8. $\underline{-5} \cdot \underline{4} \cdot \underline{-2} =$ $\underline{-20} \cdot \underline{-2} =$ 40</p> <p>ANSWER: <u>40</u></p>	<p>9. $-6 + 11 - (-6) - 2 =$ $\underline{-6} + \underline{11} + \underline{6} - 2 =$ $17 - 6 - 2 =$ $11 - 2 =$ 9</p> <p>ANSWER: <u>9</u></p>
<p>10. $4(2x - 7) =$ $8x - 28$</p> <p>ANSWER: <u>$8x - 28$</u></p>	<p>11. $100 - 10 \div [5 \cdot (44 - 43)] =$ $100 - 10 \div [5 \cdot 1] =$ $100 - \underline{10 \div 5} =$ $100 - 2 =$ 98</p> <p>ANSWER: <u>98</u></p>	<p>12. $-12 \div (-5 + 2) \div 2 =$ $\underline{-12 \div (-3)} \div 2 =$ $4 \div 2 =$ 2</p> <p>ANSWER: <u>2</u></p>

<p>13. $15 \cdot (10 - 2^3) \div 5 - 2 =$ $15 \cdot (10 - 8) \div 5 - 2 =$ $15 \cdot (2) \div 5 - 2 =$ $30 \div 5 - 2 =$ $6 - 2 =$ ANSWER: <u>3</u></p>	<p>14. $- -12 = -12$ ANSWER: <u>-12</u></p>	<p>15. $-18 = 18$ ANSWER: <u>18</u></p>
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For 16-18, translate each phrase into a mathematical expression.

- 16.) Ten more than twice a number x $2x + 10$
- 17.) Five less than 4 times y $4y - 5$
- 18.) 7 more than a number z multiplied by 3 $3z + 4$
- 19.) Three more than 8 times as many trees
Variable: t \rightarrow can be any letter
Stands for: # of trees
Expression: $8t + 3$
- 20.) 8 more than twice as many points as Bob
Variable: p \rightarrow can be any letter
Stands for: Bob's points
Expression: $2p + 8$

Use the scenario to find the resulting value. Write your answer as an integer.

- 21.) A submarine at the surface dives 280 ft. then rises 110 ft. Find the resulting depth.
 $-280 + 110 = -170 \text{ ft}$
- 22.) Kelsey started with \$112. She spent \$35, gave \$40 to a friend, and received her \$75 paycheck. How much does she have now?
 $112 - 35 - 40 + 75 = 187 - 35 - 40 = 187 - 75 = \112
- 23.) Juan owes his friend Jack \$12 and his friend Amy \$30. How much money does he have?
 $-12 - 30 = -\$42$