

Name _____

Score _____

Translate into a variable expression. Then simplify.

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|--|---|-----------|
| 1. a number plus twice a number | 2. a number increased by the difference between six and the number | 1. _____ |
| | | 2. _____ |
| 3. the difference between a number and one-third of the number | 4. one-third of the total of nine times a number and twenty-one | 3. _____ |
| | | 4. _____ |
| 5. nine times the quotient of a number and three | 6. the sum of one-half of a number and three fourths of the number | 5. _____ |
| | | 6. _____ |
| 7. twelve times the product of two and a number | 8. a number decreased by three-fourths of the number | 7. _____ |
| | | 8. _____ |
| 9. a number minus the difference of the number and four | 10. the total of four times a number and twice the difference between the number and four | 9. _____ |
| | | 10. _____ |
| 11. twice the total of two consecutive odd integers | 12. twenty minus one-third of a number and nine | 11. _____ |
| | | 12. _____ |
| 13. the sum of the second and third of three consecutive even integers | 14. one-third of the sum of three consecutive odd integers | 13. _____ |
| | | 14. _____ |
| 15. one less than the sum of the first and third of three consecutive integers | 16. seven more than twice the sum of a number and eleven | 15. _____ |
| | | 16. _____ |
| 17. the sum of four times a number and six subtracted from nine times the number | 18. four plus the product of five more than a number and nine | 17. _____ |
| | | 18. _____ |
| 19. a number subtracted from the product of six plus the number and ten | 20. eleven decreased by the product of two less than a number and ten | 19. _____ |
| | | 20. _____ |

Name _____Score _____

Solve.

- | | | |
|---|---|----------|
| 1. A 10-foot board is cut into two different lengths. Express the length of the longer piece in terms of the length of the shorter piece. | 2. The measure of angle B of a triangle is five times the measure of angle A . The measure of angle C is ten times the measure of angle B . Write the expressions for angle B and angle C in terms of angle A . | 1. _____ |
| | | 2. _____ |
| 3. A fishing line 3 m long is cut into two pieces, one longer than the other. Express the length of the longer piece in terms of the length of the shorter piece. | 4. A financial advisor has invested \$20,000 in two accounts. If one account contains d dollars, express the amount in the second account in terms of d . | 3. _____ |
| | | 4. _____ |
| 5. A trail mixture contains 2 lb more of raisins than peanuts. Express the amount of raisins in terms of the amount of peanuts in the mixture. | 6. The Ambassador Bridge from Detroit to Canada is 1883 m longer than the Detroit – New Windsor Tunnel. Express the length of the bridge in terms of the length of the tunnel. | 5. _____ |
| | | 6. _____ |
| 7. A wallet contains four times as many \$20 dollar bills as single dollar bills. Express the number of \$20 dollar bills in terms of the number of singles. | 8. The number of gallons of white paint is twice the number of gallons of yellow paint. Express the number of gallons of white paint in terms of the number of gallons of yellow paint. | 7. _____ |
| | | 8. _____ |