

NAME _____

DATE _____

Module Test **B**

Module 4

Write an equation to represent each sentence or situation.

- | | |
|--|---|
| <p>1. The quotient x divided by four, decreased by three is one.</p> <p>_____</p> | <p>2. Three times the quantity of a number decreased by ten is equal to six.</p> <p>_____</p> |
| <p>3. Each CD-ROM costs b dollars. A bundle of 9 CD-ROMS costs \$22.50.</p> <p>_____</p> | <p>4. Ingrid is h in. tall. Ingrid's sister is 3 in. taller than half Ingrid's height. The sum of their heights is 90 in.</p> <p>_____</p> |
| <p>5. Larry has written 4 fewer pages of a group assignment than Roger. Together, the boys have written 26 pages.</p> <p>_____</p> | <p>6. The sum of triple a number and three is equivalent to fifteen less than the number.</p> <p>_____</p> |
| <p>7. In a rectangle, the length is four more than twice the width. The area of the rectangle is 160 cm^2. (Hint: the formula for the area of a rectangle is $A = lw$.)</p> <p>_____</p> | <p>8. Louie did h of his 26 homework problems and has 12 left.</p> <p>_____</p> |

Solve.

- | | |
|---|---|
| <p>9. A photographer charges \$4.30 per pose. How many poses were done if the total charge was \$55.90?</p> <p>_____</p> | <p>10. Angle D has a measure 30° less than half that of its supplement. Find the measure of the supplement of angle D.</p> <p>_____</p> |
| <p>11. The sum of two consecutive integers is -89. What are the two integers?</p> <p>_____</p> | <p>12. The sum of two consecutive odd integers is 228. What are the two integers?</p> <p>_____</p> |
| <p>13. A customer left a 15% tip at a restaurant. What was the price of the meal, before tip, if the amount of the tip was \$8.16?</p> <p>_____</p> | <p>14. After a 35% employee discount, Rhonda paid \$62.40 for a pair of boots. What was the regular price of the boots?</p> <p>_____</p> |

- 15.** A bike shop has a 40% markup on all its bikes. What is the wholesale cost of a bike that retails for \$322?
- _____
- 17.** In a triangle, the first side is 4 in. longer than the second side. The third side is 6 in. shorter than the second side. What is the length of the shortest side if the perimeter is 31 in.?
- _____
- 19.** In an isosceles triangle, the measure of each base angle is 30° less than the measure of the vertex angle. Find the measure of each base angle.
- _____
- 21.** Mark is adding peanuts to 2 pounds of trail mix that is 20% peanuts. How many pounds of peanuts should he add so that the mixture is 68% peanuts?
- _____
- 23.** A car traveled the first leg of a 130-mile trip at 55 mph, then completed the trip at 40 mph. How long did the car travel at 55 mph if the entire trip took 2.5 hours?

A. Draw a picture that can help you solve this problem.

B. Write an equation to solve this problem. _____

C. Identify what the variable stands for. _____

D. Solve the problem. Be sure to answer the question, and then show how to check your answer.

