

### Homework: Variables and Expressions

I. Indicate with math symbols what operations are being described by the given word(s). Use +, -,  $\times$ , or  $\div$  symbols.

- |                    |                       |                          |
|--------------------|-----------------------|--------------------------|
| 1. sum _____       | 2. product _____      | 3. decreased by _____    |
| 4. quotient _____  | 5. increased by _____ | 6. difference _____      |
| 7. more than _____ | 8. less than _____    | 9. twice something _____ |

II. Write a verbal expression for the algebraic expression.

- |                   |                |
|-------------------|----------------|
| 10. $ab$          | 11. $x + 7$    |
| 12. $2x$          | 13. $m^3$      |
| 14. $x - 6$       | 15. $8y^2$     |
| 16. $\frac{x}{y}$ | 17. $2(x + y)$ |
| 18. $3x - 4$      | 19. $5(a - b)$ |

III. Write an algebraic expression to the given verbal expression.

- |                                       |  |
|---------------------------------------|--|
| 20. eight less than a number          | 21. a number increased by seven        |
| 22. the quotient of $m$ and $n$       | 23. a number squared                   |
| 24. nine times a number               | 25. a number decreased by three        |
| 26. seven more than a number          | 27. the product of $x$ and $y$         |
| 28. the product of $a$ and $b$        | 29. twice the product of $a$ and $b$   |
| 30. two less than five times a number | 31. twice a number increased by three  |
| 32. the sum of 3 times $a$ and $b$    | 33. three times the sum of $a$ and $b$ |
| 34. the cube of $a$ plus $b$          | 35. the sum of 18 and a number         |