

Lesson 7.2 Evaluating Algebraic Expressions

Evaluate each expression for the given value of the variable.

Example

$$u + 9 \text{ when } u = 11$$

$$u + 9 = \underline{11} + 9$$

$$= \underline{20}$$

Substitute the given value of the variable into the expression. Then solve.



1. $z - 13$ when $z = 20$

$$z - 13 = \underline{\quad\quad\quad} - 13$$

$$= \underline{\quad\quad\quad}$$

2. $3m + 2$ when $m = 5$

$$3m + 2 = 3 \cdot \underline{\quad\quad\quad} + 2$$

$$= \underline{\quad\quad\quad} + 2$$

$$= \underline{\quad\quad\quad}$$

3. $40 - 5p$ when $p = 6$

$$40 - 5p = 40 - 5 \cdot \underline{\quad\quad\quad}$$

$$= 40 - \underline{\quad\quad\quad}$$

$$= \underline{\quad\quad\quad}$$

4. $\frac{2d}{9}$ when $d = 3$

$$\frac{2d}{9} = \frac{2 \cdot \boxed{\quad\quad\quad}}{9}$$

$$= \frac{\boxed{\quad\quad\quad}}{9}$$

$$= \underline{\quad\quad\quad}$$

5. $\frac{e}{3} - 6$ when $e = 24$

6. $7 - \frac{r}{2}$ when $r = 4$

7. $\frac{21 - g}{4} + 6$ when $g = 5$

8. $\frac{10 - 2x}{10}$ when $x = 2$

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Evaluate each expression when $k = 2$.

9. $8k - 2$

10. $\frac{4k}{3}$

11. $\frac{9k}{5} - 2$

12. $\frac{6 + 3k}{6}$

Evaluate each of the following when $p = 3$.

13. The sum of $6p$ and 4.

14. The difference "12 less than $7p$ ".

15. The product of $(5 + 3p)$ and $(2p - 3)$.

16. The quotient of $(4p - 5)$ and $(5p - 1)$.