## Evaluating Algebraic Expressions

Algorithm

1. Substitute values of variable into the expression
2. Use the Order of Operations to evaluate arithmetic expressions

$$
\text { Example: If } \mathrm{a}=2, \mathrm{~b}=10 \text { and } \mathrm{c}=-5, \text { evaluate } \quad \begin{aligned}
& \\
& \\
& \\
& \\
& \\
& =10^{2}-4 a c, \\
& = \\
& \\
& =100-(2)(-50) \\
& \\
& =
\end{aligned}
$$

Evaluate each of the following algebraic expressions.

1. $\mathrm{p}-5$, if $\mathrm{p}=8$
2. $f-c$, if $f=6, c=5$
3. $3 a+4 b$, if $a=2$ and $b=3$
4. $2 w+2 z$, if $w=-4$ and $z=5$
5. $b^{2}+3 d$, if $b=4$ and $d=-4$
6. $b c+d e$, if $b=2, c=-3, d=-5, e=6$
7. $a b f$, if $a=-2, b=-3, f=-5$
8. $7 d-b$, if $=-2$ and $b=-3$
9. $\quad 1 / 2(B+b) h$, if $B=12, b=8, h=5$
10. prt, if $\mathrm{p}=50, \mathrm{r}=.02, \mathrm{t}=6$
