

14. When  $2x + 1$  was substituted into  $3x^2 - x + 2$  for  $x$  and when  $-x$  was replaced with  $2x + 1$ , the negative sign was not distributed.
20.  $f + g = 2x^2 + 8x + 1$
21.  $f - g = 2x^2 + 2x - 3$
22. a.  $r(x) = 600x - 4x^2$   
b. \$17,600
23.  $\frac{f}{g} = x - 4$  for all real numbers  $x$ , such that  $x \neq -7$ .
24.  $-89$
25.  $-28x - 5$
26.  $-21$
27.  $-28x + 35$
28.  $4x^2 - 38x + 90$
29.  $-2x^2 - 2x + 9$
30. It is better for Kayden if the 10% discount is applied before the \$50 instant rebate because he will save \$5 more.
31. a.  $600h + 500$   
b. \$5,300  
c. During an 8-hour period of manufacturing, the cost for the factory to manufacture 240 shovels is \$5,300.
32. a. \$72.25  
b. \$71.50  
c. Since  $\$71.50 < \$72.25$ , it is a better deal for the consumer if the 15% discount is applied prior to the \$5 off discount.
34. A , B, E
35. C

