

⑤  $f(x) = 3x^2 + 4x - 5$   
 $g(x) = 2x + 9$

$f(x) \cdot g(x) = (3x^2 + 4x - 5)(2x + 9)$

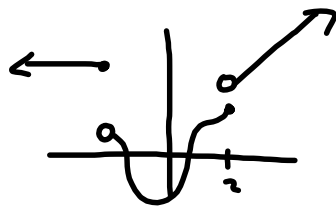
$6x^3 + 27x^2 + 8x^2 + 36x - 10x - 45$   
 $= 6x^3 + 35x^2 + 26x - 45$

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$\left(\frac{f}{g}\right)(x) = \frac{3x^2 + 4x - 5}{2x + 9}, x \neq -\frac{9}{2}$

$2x + 9 = 0$   
 $-9 \quad -9$   
 $2x = -9$   
 $\underline{\quad} \quad \underline{\quad}$   
 $x = -\frac{9}{2}$

1-7 Piecewise Functions



$<, > \quad \circ$   
 $\leq, \geq \quad \bullet$

$f(x) = \begin{cases} 2 & \text{if } x \leq -5 \\ x+4 & \text{if } -5 < x \leq 4 \\ -\frac{1}{2}x & \text{if } x > 4 \end{cases}$

