APPLYING OPERATIONS
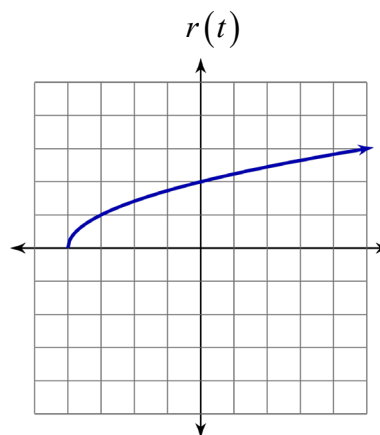
Focusing on Notation

Use the given information below to perform the indicated operations.

Given

$$v(t) = -4t + 7$$

t	$d(t)$
−5	2
−3	1
−1	−4
0	−6
1	−5
3	−2
5	0

$r(t)$

1) $(d + v - r)(-3) =$

3) $(r \cdot v)(-5) =$

2) $(r + d)(5) - (d \cdot v)(1) =$

4) $\left(\dfrac{d}{r}\right)(0) =$

Finding Domain Restrictions

Find $(f \cdot g)(x)$ and $\left(\dfrac{f}{g}\right)(x)$ for each of the following pairs of functions. Indicate any domain restrictions. Write "none" if there is not a domain restriction.

5) $f(x) = x^2 - 6x$

$g(x) = x - 6$

6) $f(x) = x + 2$

$g(x) = x^2 + 4$

7) $f(x) = x^{\frac{3}{2}}$

$g(x) = x^{\frac{1}{2}}$