5. Which of the following are correct calculations for difference quotient of:

$v(j) = 7j^2 + 7j + 3$

$v(j) = 7j^2 + 7j + 3$

$v(j+h) = 7(h+j)^2 + 7(h+j) + 3$

$= 7h^2 + 14hj + 7h + 7j^2 + 7j + 3$

$\frac{v(j+h)-v(j)}{h} = \frac{\left(7h^2+14jh+7h+7j^2+7j+3\right)-\left(7(j+1)^2+7(j+1)+3\right)}{h}$

$= \frac{7h^2+14jh+7h}{h}$

$= \frac{h(7h+14j+7)}{h}$

$= 7h + 14j + 7$

$v(j) = 7j^2 + 7j + 3$

$v(j+h) = 7(h+j)^2 + 7(h+j) + 3$

$= 7h^2 + 14hj + 21h + 7j^2 + 21j + 17$

$\frac{v(j+h)-v(j)}{h} = \frac{\left(7h^2+14jh+21h+7j^2+21j+17\right)-\left(7j^2+7j+3\right)}{h}$

$= \frac{7h^2+14jh+7h}{h}$

$= \frac{h(7h+14j+7)}{h}$

$= 7h + 14j + 7$

$v(j) = 7j^2 + 7j + 3$

$v(j+h) = 7(h+j)^2 + 7(h+j) + 3$

$= 7h^2 + 14hj + 7h + 7j^2 + 7j + 3$

$\frac{v(j+h)-v(j)}{h} = \frac{\left(7h^2+14jh+7h+7j^2+7j+3\right)-\left(7j^2+7j+3\right)}{h}$

$= \frac{7h^2+14jh+7h}{h}$

$= \frac{h(7h+14j+7)}{h}$

$= 7h + 14j + 7$

$v(j) = 7j^2 + 7j + 3$

$v(j+h) = 7(h+j)^2 + 7(h+j) + 3$

$= 7h^2 + 14hj - 7h + 7j^2 - 7j + 3$

$\frac{v(j+h)-v(j)}{h} = \frac{\left(7h^2+14jh+35h+7j^2+35j+45\right)-\left(7j^2+7j+3\right)}{h}$

$= \frac{7h^2+14jh+7h}{h}$

$= \frac{h(7h+14(j+1)+7)}{h}$

$= 7h + 14j + 7$

Solution