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

$m(r) = 4r^2 + 6r + 7$

$m(r) = 4r^2 + 6r + 7$

$m(r+h) = 4(h+r)^2 + 6(h+r) + 7$

$= 4h^2 + 8hr + 6h + 4r^2 + 6r + 7$

$\frac{m(r+h)-m(r)}{h} = \frac{\left(4h^2+8rh+6h+4r^2+6r+7\right)-\left(4(r+1)^2+6(r+1)+7\right)}{h}$

$= \frac{4h^2+8rh+6h}{h}$

$= \frac{h(4h+8r+6)}{h}$

$= 4h + 8r + 6$

$m(r) = 4r^2 + 6r + 7$

$m(r+h) = 4(h+r)^2 + 6(h+r) + 7$

$= 4h^2 + 8hr + 14h + 4r^2 + 14r + 17$

$\frac{m(r+h)-m(r)}{h} = \frac{\left(4h^2+8rh+14h+4r^2+14r+17\right)-\left(4r^2+6r+7\right)}{h}$

$= \frac{4h^2+8rh+6h}{h}$

$= \frac{h(4h+8r+6)}{h}$

$= 4h + 8r + 6$

$m(r) = 4r^2 + 6r + 7$

$m(r+h) = 4(h+r)^2 + 6(h+r) + 7$

$= 4h^2 + 8hr + 6h + 4r^2 + 6r + 7$

$\frac{m(r+h)-m(r)}{h} = \frac{\left(4h^2+8rh+6h+4r^2+6r+7\right)-\left(4r^2+6r+7\right)}{h}$

$= \frac{4h^2+8rh+6h}{h}$

$= \frac{h(4h+8r+6)}{h}$

$= 4h + 8r + 6$

$m(r) = 4r^2 + 6r + 7$

$m(r+h) = 4(h+r)^2 + 6(h+r) + 7$

$= 4h^2 + 8hr - 2h + 4r^2 - 2r + 5$

$\frac{m(r+h)-m(r)}{h} = \frac{\left(4h^2+8rh+22h+4r^2+22r+35\right)-\left(4r^2+6r+7\right)}{h}$

$= \frac{4h^2+8rh+6h}{h}$

$= \frac{h(4h+8(r+1)+6)}{h}$

$= 4h + 8r + 6$

Solution