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

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

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

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

$= 7h^2 + 14hr + 4h + 7r^2 + 4r + 2$

$$\frac{m(r+h)-m(r)}{h} = \frac{\left(7h^2+14rh+4h+7r^2+4r+2\right)-\left(7(r+1)^2+4(r+1)+2\right)}{h}$$

$$= \frac{7h^2+14rh+4h}{h}$$

$$= \frac{h(7h+14r+4)}{h}$$

$= 7h + 14r + 4$

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

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

$= 7h^2 + 14hr + 18h + 7r^2 + 18r + 13$

$$\frac{m(r+h)-m(r)}{h} = \frac{\left(7h^2+14rh+18h+7r^2+18r+13\right)-\left(7r^2+4r+2\right)}{h}$$

$$= \frac{7h^2+14rh+4h}{h}$$

$$= \frac{h(7h+14r+4)}{h}$$

$= 7h + 14r + 4$

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

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

$= 7h^2 + 14hr + 4h + 7r^2 + 4r + 2$

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

$$= \frac{7h^2+14rh+4h}{h}$$

$$= \frac{h(7h+14r+4)}{h}$$

$= 7h + 14r + 4$

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

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

$= 7h^2 + 14hr - 10h + 7r^2 - 10r + 5$

$$\frac{m(r+h)-m(r)}{h} = \frac{\left(7h^2+14rh+32h+7r^2+32r+38\right)-\left(7r^2+4r+2\right)}{h}$$

$$= \frac{7h^2+14rh+4h}{h}$$

$$= \frac{h(7h+14(r+1)+4)}{h}$$

$= 7h + 14r + 4$

Solution