

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

$$p(c) = 9c^2 + 7c + 7$$

$$p(c) = 9c^2 + 7c + 7$$

$$p(c+h) = 9(c+h)^2 + 7(c+h) + 7$$

$$= 9c^2 + 18ch + 7c + 9h^2 + 7h + 7$$

$$\frac{p(c+h) - p(c)}{h} = \frac{(9c^2 + 18ch + 7c + 9h^2 + 7h + 7) - (9c^2 + 7c + 7)}{h}$$

$$= \frac{9h^2 + 18ch + 7h}{h}$$

$$= \frac{h(18c + 9h + 7)}{h}$$

$$= 18c + 9h + 7$$

$$p(c) = 9c^2 + 7c + 7$$

$$p(c+h) = 9(c+h)^2 + 7(c+h) + 7$$

$$= 9c^2 + 18ch + 25c + 9h^2 + 25h + 23$$

$$\frac{p(c+h) - p(c)}{h} = \frac{(9c^2 + 18ch + 25c + 9h^2 + 25h + 23) - (9c^2 + 7c + 7)}{h}$$

$$= \frac{9h^2 + 18ch + 7h}{h}$$

$$= \frac{h(18c + 9h + 7)}{h}$$

$$= 18c + 9h + 7$$

$$p(c) = 9c^2 + 7c + 7$$

$$p(c+h) = 9(c+h)^2 + 7(c+h) + 7$$

$$= 9c^2 + 18ch + 7c + 9h^2 + 7h + 7$$

$$\frac{p(c+h) - p(c)}{h} = \frac{(9c^2 + 18ch + 7c + 9h^2 + 7h + 7) - (9c^2 + 7c + 7)}{h}$$

$$= \frac{9h^2 + 18ch + 7h}{h}$$

$$= \frac{h(18c + 9h + 7)}{h}$$

$$= 18c + 9h + 7$$

$$p(c) = 9c^2 + 7c + 7$$

$$p(c+h) = 9(c+h)^2 + 7(c+h) + 7$$

$$= 9c^2 + 18ch - 11c + 9h^2 - 11h + 9$$

$$\frac{p(c+h) - p(c)}{h} = \frac{(9c^2 + 18ch + 43c + 9h^2 + 43h + 57) - (9c^2 + 7c + 7)}{h}$$

$$= \frac{9h^2 + 18ch + 7h}{h}$$

$$= \frac{h(18(c+1) + 9h + 7)}{h}$$

$$= 18c + 9h + 7$$

**Solution**