

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

$$n(t) = 9t^2 + 7t + 1$$

$$n(t) = 9t^2 + 7t + 1$$

$$n(t+h) = 9(h+t)^2 + 7(h+t) + 1$$

$$= 9h^2 + 18ht + 7h + 9t^2 + 7t + 1$$

$$\frac{n(t+h) - n(t)}{h} = \frac{(9h^2 + 18ht + 7h + 9t^2 + 7t + 1) - (9t^2 + 7t + 1)}{h}$$

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

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

$$= 9h + 18t + 7$$

$$n(t) = 9t^2 + 7t + 1$$

$$n(t+h) = 9(h+t)^2 + 7(h+t) + 1$$

$$= 9h^2 + 18ht + 25h + 9t^2 + 25t + 17$$

$$\frac{n(t+h) - n(t)}{h} = \frac{(9h^2 + 18ht + 25h + 9t^2 + 25t + 17) - (9t^2 + 7t + 1)}{h}$$

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

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

$$= 9h + 18t + 7$$

$$n(t) = 9t^2 + 7t + 1$$

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

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

$$= 9h + 18t + 7$$

$$n(t) = 9t^2 + 7t + 1$$

$$n(t+h) = 9(h+t)^2 + 7(h+t) + 1$$

$$= 9h^2 + 18ht - 11h + 9t^2 - 11t + 3$$

$$\frac{n(t+h) - n(t)}{h} = \frac{(9h^2 + 18ht + 43h + 9t^2 + 43t + 51) - (9t^2 + 7t + 1)}{h}$$

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

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

$$= 9h + 18t + 7$$

Solution