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

$p(x) = 5x^2 + 6x + 4$

$p(x) = 5x^2 + 6x + 4$

$p(x+h) = 5(h+x)^2 + 6(h+x) + 4$

$= 5h^2 + 10hx + 6h + 5x^2 + 6x + 4$

$$\frac{p(x+h)-p(x)}{h} = \frac{\left(5h^2+10xh+6h+5x^2+6x+4\right)-\left(5(x+1)^2+6(x+1)+4\right)}{h}$$

$$= \frac{5h^2+10xh+6h}{h}$$

$$= \frac{h(5h+10x+6)}{h}$$

$= 5h + 10x + 6$

$p(x) = 5x^2 + 6x + 4$

$p(x+h) = 5(h+x)^2 + 6(h+x) + 4$

$= 5h^2 + 10hx + 16h + 5x^2 + 16x + 15$

$$\frac{p(x+h)-p(x)}{h} = \frac{\left(5h^2+10xh+16h+5x^2+16x+15\right)-\left(5x^2+6x+4\right)}{h}$$

$$= \frac{5h^2+10xh+6h}{h}$$

$$= \frac{h(5h+10x+6)}{h}$$

$= 5h + 10x + 6$

$p(x) = 5x^2 + 6x + 4$

$p(x+h) = 5(h+x)^2 + 6(h+x) + 4$

$= 5h^2 + 10hx + 6h + 5x^2 + 6x + 4$

$$\frac{p(x+h)-p(x)}{h} = \frac{\left(5h^2+10xh+6h+5x^2+6x+4\right)-\left(5x^2+6x+4\right)}{h}$$

$$= \frac{5h^2+10xh+6h}{h}$$

$$= \frac{h(5h+10x+6)}{h}$$

$= 5h + 10x + 6$

$p(x) = 5x^2 + 6x + 4$

$p(x+h) = 5(h+x)^2 + 6(h+x) + 4$

$= 5h^2 + 10hx - 4h + 5x^2 - 4x + 3$

$$\frac{p(x+h)-p(x)}{h} = \frac{\left(5h^2+10xh+26h+5x^2+26x+36\right)-\left(5x^2+6x+4\right)}{h}$$

$$= \frac{5h^2+10xh+6h}{h}$$

$$= \frac{h(5h+10(x+1)+6)}{h}$$

$= 5h + 10x + 6$

Solution