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

$u(n) = 6n + 2$

$u(n) = 6n + 2$

$u(n+h) = 6(h + n) + 2$

$= 6h + 6n + 2$

$\frac{u(n+h) - u(n)}{h} = \frac{(6h+6n+2) - (6(n+1)+2)}{h}$

$= \frac{6h}{h}$

$= \frac{h(6)}{h}$

$= 6$

$u(n) = 6n + 2$

$u(n+h) = 6(h + n) + 2$

$= 6h + 6n + 8$

$\frac{u(n+h) - u(n)}{h} = \frac{(6h+6n+8) - (6n+2)}{h}$

$= \frac{6h}{h}$

$= \frac{h(6)}{h}$

$= 6$

$u(n) = 6n + 2$

$u(n+h) = 6(h + n) + 2$

$= 6h + 6n + 2$

$\frac{u(n+h) - u(n)}{h} = \frac{(6h+6n+2) - (6n+2)}{h}$

$= \frac{6h}{h}$

$= \frac{h(6)}{h}$

$= 6$

$u(n) = 6n + 2$

$u(n+h) = 6(h + n) + 2$

$= 6h + 6n - 4$

$\frac{u(n+h) - u(n)}{h} = \frac{(6h+6n+14) - (6n+2)}{h}$

$= \frac{6h}{h}$

$= \frac{h(6)}{h}$

$= 6$

Solution