

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

$$v(u) = 7u + 3$$

$$v(u) = 7u + 3$$

$$v(u+h) = 7(h+u) + 3$$

$$= 7h + 7u + 3$$

$$\frac{v(u+h) - v(u)}{h} = \frac{(7h + 7u + 3) - (7(u+1) + 3)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

$$v(u) = 7u + 3$$

$$v(u+h) = 7(h+u) + 3$$

$$= 7h + 7u + 10$$

$$\frac{v(u+h) - v(u)}{h} = \frac{(7h + 7u + 10) - (7u + 3)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

$$v(u) = 7u + 3$$

$$v(u+h) = 7(h+u) + 3$$

$$= 7h + 7u + 3$$

$$\frac{v(u+h) - v(u)}{h} = \frac{(7h + 7u + 3) - (7u + 3)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

$$v(u) = 7u + 3$$

$$v(u+h) = 7(h+u) + 3$$

$$= 7h + 7u - 4$$

$$\frac{v(u+h) - v(u)}{h} = \frac{(7h + 7u + 17) - (7u + 3)}{h}$$

$$= \frac{7h}{h}$$

$$= \frac{h(7)}{h}$$

$$= 7$$

Solution