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

$t(g) = 7g^2 + 5g + 8$

$t(g) = 7g^2 + 5g + 8$

$t(g+h) = 7(g+h)^2 + 5(g+h) + 8$

$= 7g^2 + 14gh + 5g + 7h^2 + 5h + 8$

$$\frac{t(g+h)-t(g)}{h} = \frac{\left(7g^2+14hg+5g+7h^2+5h+8\right)-\left(7(g+1)^2+5(g+1)+8\right)}{h}$$

$$= \frac{7h^2+14gh+5h}{h}$$

$$= \frac{h(14g+7h+5)}{h}$$

$= 14g + 7h + 5$

$t(g) = 7g^2 + 5g + 8$

$t(g+h) = 7(g+h)^2 + 5(g+h) + 8$

$= 7g^2 + 14gh + 19g + 7h^2 + 19h + 20$

$$\frac{t(g+h)-t(g)}{h} = \frac{\left(7g^2+14hg+19g+7h^2+19h+20\right)-\left(7g^2+5g+8\right)}{h}$$

$$= \frac{7h^2+14gh+5h}{h}$$

$$= \frac{h(14g+7h+5)}{h}$$

$= 14g + 7h + 5$

$t(g) = 7g^2 + 5g + 8$

$t(g+h) = 7(g+h)^2 + 5(g+h) + 8$

$= 7g^2 + 14gh + 5g + 7h^2 + 5h + 8$

$$\frac{t(g+h)-t(g)}{h} = \frac{\left(7g^2+14hg+5g+7h^2+5h+8\right)-\left(7g^2+5g+8\right)}{h}$$

$$= \frac{7h^2+14gh+5h}{h}$$

$$= \frac{h(14g+7h+5)}{h}$$

$= 14g + 7h + 5$

$t(g) = 7g^2 + 5g + 8$

$t(g+h) = 7(g+h)^2 + 5(g+h) + 8$

$= 7g^2 + 14gh - 9g + 7h^2 - 9h + 10$

$$\frac{t(g+h)-t(g)}{h} = \frac{\left(7g^2+14hg+33g+7h^2+33h+46\right)-\left(7g^2+5g+8\right)}{h}$$

$$= \frac{7h^2+14gh+5h}{h}$$

$$= \frac{h(14(g+1)+7h+5)}{h}$$

$= 14g + 7h + 5$

Solution