Name : _____

Evaluate: Infinite Geometric Series

T3S1

Determine if the geometric series converges or diverges. If it converges, find its sum.

1) $\sum_{c=1}^{\infty} \left(\frac{6}{5} \cdot 0.2^{c-1}\right)$

2) $\sum_{b=1}^{\infty} (4 \cdot 1.5^{b})$

3) $\sum_{z=1}^{\infty} 0.6^{z-}$ $0.4^{h+1})$

5) $\sum_{t=1}^{\infty} (-7 \cdot ($ ^{m}

7) $\sum_{k=1}^{\infty} 0.8^{k+1}$

8) $\sum_{d=1}^{\infty} (8.2 \cdot 0.2^{d-1})$

Name : _____ **Answer key**

Evaluate: Infinite Geometric Series

T3S1

Determine if the geometric series converges or diverges. If it converges, find its sum.

1) $\sum_{c=1}^{\infty} \left(\frac{6}{5} \cdot 0.2^{c-1}\right)$

1.5

2) $\sum_{b=1}^{\infty} (4 \cdot 1.5^{b})$

No sum

3) $\sum_{z=1}^{\infty} 0.6^{z-}$ … $0.4^{h+1})$

2.5 … **.6**

5) $\sum_{t=1}^{\infty} (-7 \cdot ($ … ^{m}

No su … **1**

7) $\sum_{k=1}^{\infty} 0.8^{k+1}$

3.2

8) $\sum_{d=1}^{\infty} (8.2 \cdot 0.2^{d-1})$

10.25