**Geometric sequences and series –Extra Practice - SOLUTIONS**

**Geometric sequences**

**10.** **a)** 1 and 25 or -1 and -25 **b)** 15 and 75 **c)** **d)** ;

**11.** **a)** *n* = 10 **b)** *n* = 11 **c)** *n* = 8

**12.** **a)** *t*n = 4(3)*n* – 1 **b)** *t*n = 891()*n* – 1

**13.** 6 reductions

**Geometric series**

**15.** **a)** t1 = 24, *r* = -, *n* = 10; *s*10 =

**b)** *t*1 = 0.3, *r* = , *n* = 15; *s*15 =

**c)** *t*1 = 8, *r* = -1, *n* = 40; *s*40 = 0

**d)** *t*1 = 1, *r* = , *n* = 12; S12 =

**16.** **a)** *Sn* = 3066 **b)** *Sn* = 10 922.5

**17.** **a)** *Sn* = 1905 **b)** *Sn* = -250 954 c) *Sn* = d) *Sn* =

**18.** **a)** 12 terms **b)** 6 terms

**Infinite series and sigma notation**

**20.** **a)** CV **b)** DV **c)** CV **d)** DV

**21.**