Math 163 – Formula Sheet for Test 2

for $n \geq 1$,

$$a_n = a_1 + (n-1)d \qquad\qquad a_n = a_1 r^{n-1}$$

$$S_n = \frac{n}{2}(a_1 + a_n) \qquad\qquad S_n = a_1 \frac{(1-r^n)}{1-r}$$

$$S_n = \frac{n}{2}\left(2a_1 + (n-1)d\right) \qquad\qquad S_\infty = \frac{a_1}{1-r}$$