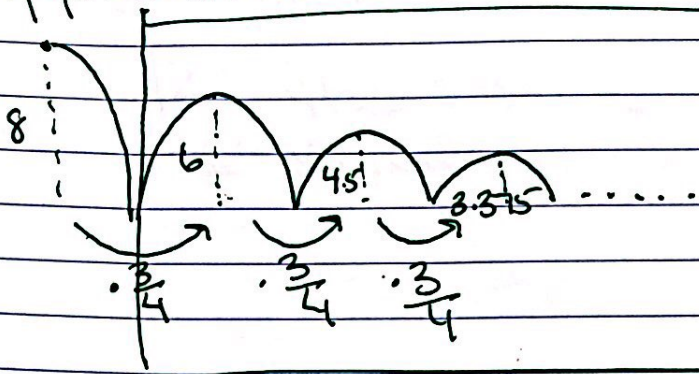


Applications

Pg 504 33)



Geometric
Sum

$$S = \frac{a}{1-r}$$

$$2(24) = 48$$

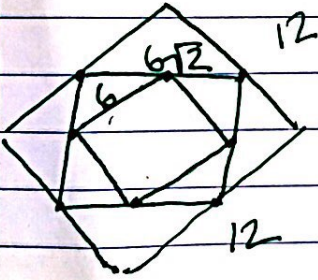
$$S = \frac{6}{1 - \frac{3}{4}}$$

↑
up
down

$$S = 24$$

$$48 + 8 = 56 \text{ m}$$

Pg 504 35)



a) 144, 72, 36, 18, ...

$$S = \frac{144}{1 - (\frac{1}{2})}$$

$$S = 288$$

b) 48, 24√2, 24,

$$\frac{24\sqrt{2}}{48} = \frac{\sqrt{2}}{2} = r$$

$$S = \frac{48}{1 - (\frac{\sqrt{2}}{2})}$$

$$= \frac{96(2+\sqrt{2})}{2-\sqrt{2}(2+\sqrt{2})}$$

$$= \frac{48}{2-\sqrt{2}}$$

$$= \frac{96(2+\sqrt{2})}{2}$$

$$= 48(2+\sqrt{2})$$

$$= 96 + 48\sqrt{2}$$

$$= 48 \left(\frac{2}{2-\sqrt{2}} \right)$$

~~96~~
~~2~~
~~96~~
~~2~~