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(245)

$$\begin{cases} a_m = \frac{1}{n} = a_1 + d(m-1) \\ a_n = \frac{1}{m} = a_1 + d(n-1) \end{cases}$$

$$\frac{1}{n} - \frac{1}{m} = d(m-1-n+1)$$

$$\frac{m-n}{nm} = d(m-n) \quad /: (m-n)$$

$$\boxed{\frac{1}{nm} = d} \rightarrow \frac{1}{n} = a_1 + \frac{1}{nm}(m-1) \rightarrow a_1 = \frac{1}{n} - \frac{1}{nm}(m-1) = \frac{m-m+1}{nm}$$
$$\boxed{a_1 = \frac{1}{nm}}$$

$$S_{nm} = \frac{nm}{2} [2a_1 + d(nm-1)] = \frac{nm}{2} \left[ \frac{2}{nm} + \frac{1}{nm}(nm-1) \right]$$

$$= \frac{nm}{2} \left[ \frac{2+nm-1}{nm} \right] = \frac{nm+1}{2} = \frac{1}{2}(nm+1)$$