

$$17. \because AM:MP=BN:NQ=3:2$$

$$\therefore \overrightarrow{MN} = \frac{2}{5}\overrightarrow{MB} + \frac{3}{5}\overrightarrow{MQ} \text{(分點公式)}$$

$$= \frac{2}{5}(\overrightarrow{AB} - \overrightarrow{AM}) + \frac{3}{5}(\overrightarrow{PQ} - \overrightarrow{PM}) \text{(AMP, PM項對消)}$$

$$= \frac{2}{5}\overrightarrow{AB} + \frac{3}{5}\overrightarrow{PQ}$$

$$(r, s) = \left(\frac{2}{5}, \frac{3}{5}\right)$$