

Weekly Question (23 Jan)

A group of friends met up for a tennis game. Each of them played with everyone else. Romeo played with **20% as many men as women**. Juliet played with **thrice as many women as men**.

(a) How many people were there altogether?

(b) Were there more men or women and, how many **percent more**?

Solution:

$$20\% = \frac{20}{100} = \frac{1}{5}$$

Without Romeo in the group, ratio of men to women is **1 : 5**.

Without Juliet in the group, ratio of men to women is **1 : 3**.

<u>Men</u>	: <u>Women</u>	<u>Total</u>	→	<u>Men</u>	: <u>Women</u>	<u>Total</u>
1 unit	: 5 units	6 units		2 units	: 10 units	12 units
1 unit	: 3 units	4 units		3 units	: 9 units	12 units

(a) **ANS: There are 13 people altogether.**

10 women and 3 men → **7 more women than men**

$$\frac{7}{3} \times 100\% = 233\frac{1}{3}\%$$

(b) **ANS: There are $233\frac{1}{3}\%$ more women than men.**