

Skill Set 23 –% and ratio combination (Ratio)

After the first round of game, the points that Team A had was $\frac{8}{13}$ that of the total points scored by Team A and Team B. In the second round, Team A gained an additional 5 points and the points that Team B had increased by 20%. The total points of Team A and Team B had after the two rounds were 75. How many points did Team A score after the first round?

$$13 - 8 = 5$$

After the first round:

Team A : Team B

$$8 : 5$$

$$\frac{20}{100} \times 5 = 1 \text{ unit}$$

$$5 + 1 = 6 \text{ units}$$

Number of units after the second round if team A did not gain the additional 5 points

$$= 8 + 6 = 14$$

$$75 - 5 = 70$$

$$14 \text{ units} = 70$$

$$1 \text{ unit} = 70 \div 14 = 5$$

$$8 \text{ units} = 8 \times 5 = \mathbf{40}$$

Team A scored **40** points after the first round.