A small barrel of grape juice is mixed using 12 parts grape concentrate and 30 parts water. A large barrel of apple juice is mixed using 16 parts apple concentrate and 36 parts water. Which barrel is fruitier?

12+30=42 - number of all parts in small barrel

$\frac{12}{42} = \frac{2}{7}$ – part of grape in small barrel

16+36=52 - number of all parts in larger barrel

$\frac{16}{52} = \frac{4}{13}$ – part of grape in larger barrel

Reduce it to a common denominator

$$\frac{2}{7} = \frac{2 \cdot 13}{7 \cdot 13} = \frac{26}{91}$$

$$\frac{4}{13} = \frac{4 \cdot 7}{13 \cdot 7} = \frac{28}{91}$$

28 > 26 so $\frac{26}{91} < \frac{28}{91}$. It means that juice in larger barrel is fruitier.