

Date: 09.10.18

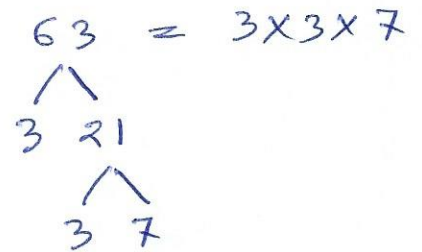
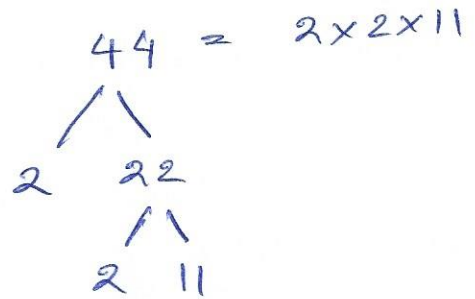
Unit one practice test:

#27. $\frac{44}{63} \div \frac{11}{3}$

$$= \frac{44}{63} \times \frac{3}{11}$$

$$= \frac{2 \times 2 \times \cancel{11}}{3 \times \cancel{3} \times 7} \times \frac{\cancel{3}}{\cancel{11}}$$

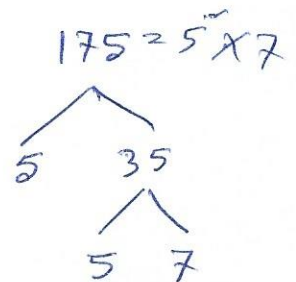
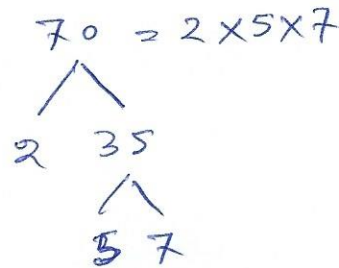
$$= \boxed{\frac{4}{21}}$$



#28. $\frac{70}{175} \div \frac{14}{5}$

$$= \frac{\cancel{2} \times \cancel{5} \times 7}{5 \times \cancel{5} \times 7} \times \frac{\cancel{5}}{\cancel{2} \times 7}$$

$$= \boxed{\frac{1}{7}}$$

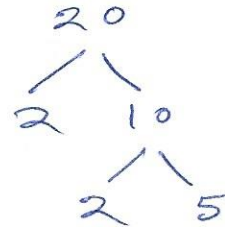
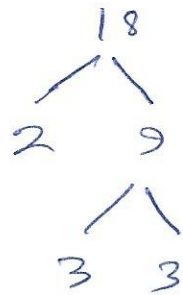
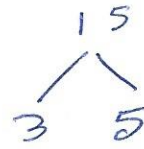


#29. $\frac{15/18}{9/20}$

$= \frac{15}{18} \times \frac{20}{9}$

$= \frac{\cancel{3} \times 5}{\cancel{2} \times 3 \times \cancel{3}} \times \frac{\cancel{2} \times 2 \times 5}{3 \times 3}$

$= \boxed{\frac{50}{27}}$



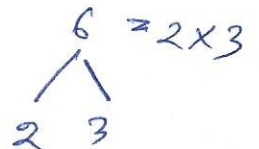
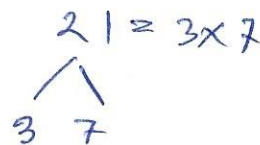
#30. $\frac{5/6}{7/21}$

$= \frac{5}{6} \div \frac{7}{21}$

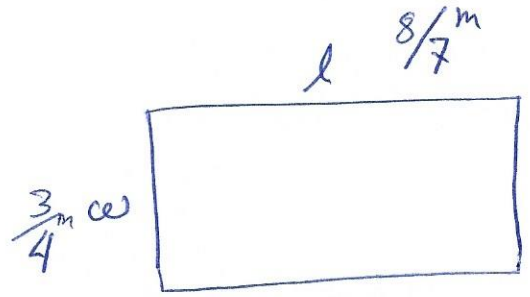
$= \frac{5}{6} \times \frac{21}{7}$

$= \frac{5}{\cancel{2} \times \cancel{3}} \times \frac{\cancel{3} \times \cancel{7}}{\cancel{7}}$

$= \boxed{\frac{5}{2}}$



~~30~~ sample



$$\begin{aligned}
 A &= w \cdot l \\
 &= \frac{3}{4} \times \frac{8}{7} \text{ m}^2 \\
 &= \frac{3}{\cancel{2 \times 2}} \times \frac{\cancel{2} \times \cancel{2} \times 2}{7} \text{ m}^2 \\
 &= \boxed{\frac{6}{7} \text{ m}^2}
 \end{aligned}$$

31.

$$\begin{aligned}
 A &= w \cdot l = \frac{9}{7} \times \frac{14}{15} \\
 &= \frac{3 \times \cancel{3}}{\cancel{7}} \times \frac{2 \times \cancel{7}}{\cancel{3} \times 5} \text{ yd.}^2 \\
 &= \boxed{\frac{6}{5} \cdot \text{yd.}^2}
 \end{aligned}$$

#32.

$$\begin{aligned}
 A &= w.l \\
 &= \frac{13}{14} \times \frac{7}{5} \\
 &= \frac{13}{\cancel{2 \times 7}} \times \frac{\cancel{7}}{5} \\
 &= \boxed{\frac{13}{10} \text{ yd.}^2}
 \end{aligned}$$

#33.

$$\begin{aligned}
 &\frac{\frac{4}{5}}{5} \\
 &= \frac{4}{5} \times \frac{1}{5} \\
 &= \boxed{\frac{4}{25} \text{ ton}}
 \end{aligned}$$

mean & average:

2, 4, 7, 5, 3, 2

$$\text{mean} = \frac{2+4+7+5+3+2}{6} = \frac{23}{6}$$

$$\text{avg} = \frac{2+4+7+5+3+2}{6} = \frac{23}{6}$$

#34.

$$\frac{3}{4} \div 8/1$$

$$= \frac{3}{4} \times \frac{1}{8} = \frac{3}{2 \cdot 2 \cdot 2} \times \frac{1}{2 \cdot 2 \cdot 2}$$

$$= \frac{3}{32} \text{ of the budget.}$$

#35.

56 employees

18 full time

$$\therefore \text{part time} = 56 - 18 = 38$$

$$\text{fraction} = \frac{38}{56}$$

$$= \frac{\cancel{2} \times 19}{\cancel{2} \times 2 \times 2 \times 7}$$

$$= \boxed{\frac{19}{28}}$$

$$\begin{array}{l} 38 = 2 \times 19 \\ \wedge \\ 2 \quad 19 \end{array}$$

$$\begin{array}{l} 56 = 2 \times 2 \times 2 \times 7 \\ \wedge \\ 2 \quad 28 \\ \wedge \\ 2 \quad 14 \\ \wedge \\ 2 \quad 7 \end{array}$$

Add Fractions:

$$\frac{a}{b} + \frac{c}{b} = \frac{a+c}{b}$$

$$\frac{2}{5} + \frac{3}{5} = \frac{2+3}{5} = \frac{5}{5} = 1$$

$$\# \frac{2}{9} + \frac{5}{9} + \frac{8}{9}$$

$$= \frac{2+5+8}{9}$$

$$= \frac{15}{9}$$

$$= \frac{3 \times 5}{3 \times 3}$$

$$= \frac{5}{3}$$

Subtract Fractions:

$$\frac{a}{b} - \frac{c}{b} = \frac{a-c}{b}$$

$$\# \frac{7}{4} + \frac{3}{6}$$

$$= \frac{3}{3} \cdot \frac{7}{4} + \frac{3}{6} \cdot \frac{2}{2}$$

L.C.M = least Common Multiple

$$4 = \underline{2} \times \underline{2} \quad \left. \begin{array}{l} \text{---} \\ \text{---} \end{array} \right\} 3$$

$$6 = \underline{2} \times \underline{3} \quad \left. \begin{array}{l} \text{---} \\ \text{---} \end{array} \right\} 2$$

$$\frac{21}{12} + \frac{6}{12}$$

$$= \frac{21+6}{12}$$

$$= \frac{27}{12}$$

$$= \frac{3 \times 3 \times 3}{2 \times 2 \times 3}$$

$$= \frac{9}{4}$$

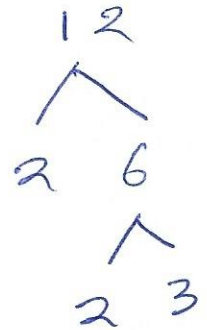
$$\# \frac{7}{15} + \frac{11}{21}$$

$$= \frac{7}{7} \cdot \frac{7}{15} + \frac{11}{21} \cdot \frac{5}{5}$$

$$= \frac{49}{105} + \frac{55}{105}$$

$$= \frac{49+55}{105}$$

$$= \boxed{\frac{104}{105}}$$



$$\text{L.C.M} = 105$$

$$15 = 3 \times \boxed{5} \times \boxed{7}$$

$$21 = 3 \times \boxed{7} \times \boxed{5}$$

Quiz :1. Write $\frac{156}{7}$ as a mixed #.

$$\begin{array}{r}
 7 \overline{) 156} \quad 22 \frac{2}{7} \\
 \underline{14} \\
 16 \\
 \underline{14} \\
 2
 \end{array}$$

$$\text{So, } \frac{156}{7} = \boxed{22 \frac{2}{7}}$$

$$2. \frac{15}{26} \cdot \frac{14}{25} \cdot \frac{65}{12}$$

$$= \frac{\cancel{3} \times \cancel{5}}{\cancel{2} \times \cancel{13}} \cdot \frac{\cancel{2} \times 7}{\cancel{5} \times \cancel{5}} \cdot \frac{\cancel{5} \times \cancel{13}}{2 \times 2 \times \cancel{3}}$$

$$= \boxed{\frac{7}{4}}$$

$$\begin{array}{c}
 65 \\
 \wedge \\
 5 \quad 13
 \end{array}$$