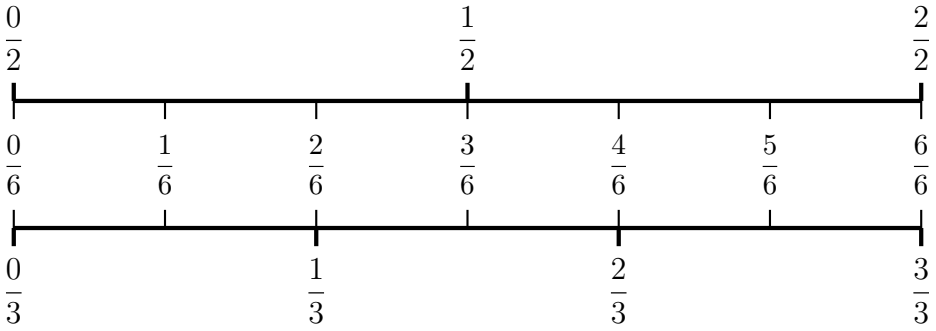
1. Here is a number line showing, halves and sixths



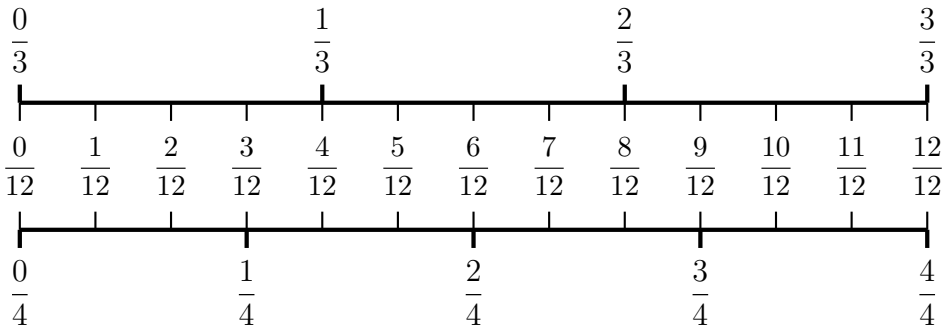

Use this number line to complete

(a) $\frac{1}{2} = \frac{\quad}{6}$

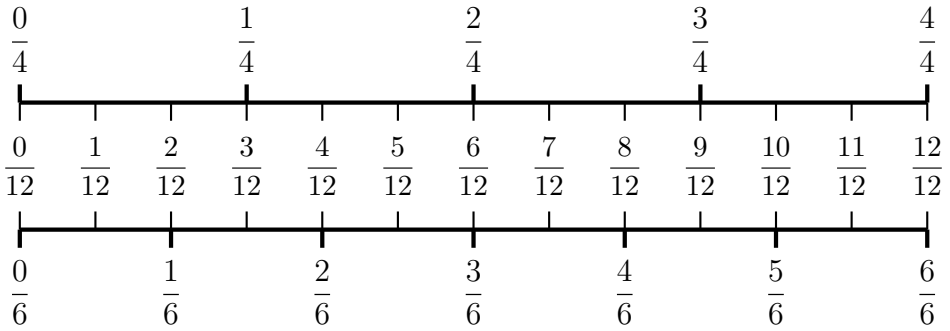
(b) $\frac{1}{3} = \frac{\quad}{6}$

(c) $\frac{1}{2} + \frac{1}{3} = \frac{\quad}{6} + \frac{\quad}{6} = \frac{\quad}{6}$

2. Use this number line to complete $\frac{3}{4} - \frac{1}{3} = \frac{\quad}{12} - \frac{\quad}{12} = \frac{\quad}{12}$




3. Use this number line to complete $\frac{5}{6} - \frac{1}{4} = \frac{\quad}{12} - \frac{\quad}{12} = \frac{\quad}{12}$

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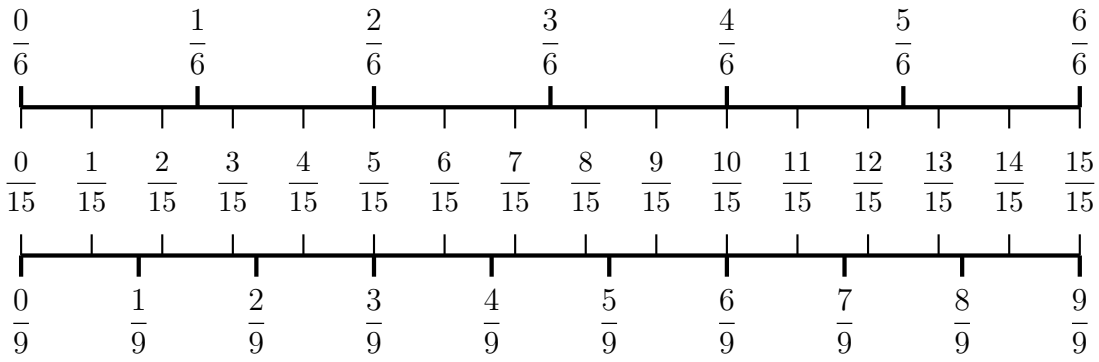
fraction + / - (6) answers: Q1 (a) $\frac{1}{2} = \frac{3}{6}$, (b) $\frac{1}{2} = \frac{2}{6}$, (c) $\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$ Q2: $\frac{5}{12}$, Q3: $\frac{7}{12}$

4. The timely practice app asked Claudius and Laertes to work out $\frac{1}{6} + \frac{2}{9}$

Laertes said the answer is $\frac{3}{15}$ because $\frac{1+2}{6+9}$

(a) Use this number line to explain one reason why Laertes must be wrong

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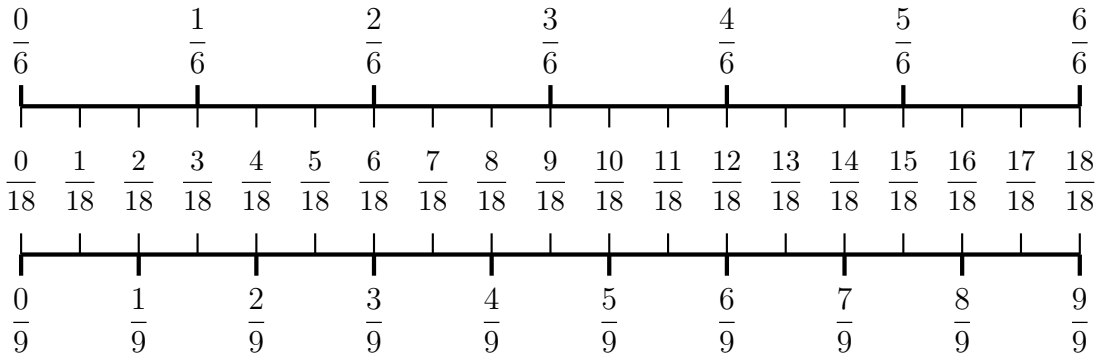
Claudius said the answer to $\frac{1}{6} + \frac{2}{9} = \frac{7}{18}$

(b) Use this number line to explain why Claudius is correct.

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(c) Use the number line, in part (b), to complete $\frac{7}{9} - \frac{1}{6} = \frac{\quad}{18} - \frac{\quad}{18} = \frac{\quad}{18}$

fraction + / - (6) Q4: (a) e.g. $\frac{3}{15} < \frac{2}{9}$ , and $\frac{1}{6}$ is not negative, so $\frac{1}{6} + \frac{2}{9}$ must be larger than $\frac{3}{15}$

answers (b) $\frac{1}{6} + \frac{2}{9} = \frac{3}{18} + \frac{4}{18} = \frac{7}{18}$, (c) $\frac{7}{9} - \frac{1}{6} = \frac{14}{18} - \frac{3}{18} = \frac{11}{18}$