6: Fractions

Rules:

1. Addition/Subtraction

1. $\frac{10}{7} + \frac{2}{7} = \frac{12}{7}$

2. If denominators are not the same

$$\frac{10}{7} + \frac{2}{5} = \frac{10}{7} + \frac{2}{5} = \frac{50}{35} + \frac{14}{35} = \frac{64}{35}$$

2. Multiply

$$\frac{10}{7} \times \frac{2}{7} = \frac{20}{49}$$

3. Division

$$\frac{10}{7} \div \frac{2}{7} = \frac{10}{7} \times \frac{7}{2} = \frac{70}{14}$$

Change from × to ÷ by switch nominator with denominator

6: Recurring Decimal:

1.Change 0.7777777… to fraction?

Set X to recurring decimal → $x = 0.\dot{7}$

Bring one loop of recurring decimal to before dot

Try to eliminate recurring → $10x = 7.\dot{7}$

$$10x - x = 7.\dot{7} - 0.\dot{7}$$

$$9x = 7$$

rearrange → $x = \frac{7}{9}$

2.Change 1.256565656.. to fraction?

Set X to recurring decimal → $x = 1.25\dot{6}\dot{6}$

Bring one loop of recurring decimal to before dot

Try to eliminate recurring → $10x = 12.5\dot{6}\dot{6}$

$$1000x = 1256.5\dot{6}\dot{6}$$

$$1000x - 10x = 1256.5\dot{6}\dot{6} - 12.5\dot{6}\dot{6}$$

$$990x = 1244$$

rearrange → $$x = \frac{1244}{990}$$