Mathematics9 Date _____

Unit 1: Review – Integers & Rationals [NO CALCULATORS]

1.5 Rationals: Multiplication & Division

- Do **NOT** need a common denominator to multiply or divide
- Can **NOT** easily multiply or divide in mixed number form – change to impropers

Multiplication

- Cancel (divide) common factors from numerator/denominator pairs and then multiply straight across

Ex. Evaluate:

a) $\frac{2}{3} \times \frac{1}{4}$ b) $\frac{5}{12} \times \frac{9}{20}$ c) $\frac{3}{4} \times 16$

Ex. Evaluate:

a) $2\frac{1}{2} \times \frac{3}{4}$ b) $2 \times 3\frac{3}{4}$ c) $5\frac{1}{3} \times 2\frac{1}{10}$

Reciprocals

- The reciprocal of a fraction switches the numerator & denominator

Ex. State the reciprocal of each:

a) $\frac{2}{3}$ b) $\frac{1}{5}$ c) 6

Division

- Change division to multiplication by the reciprocal

Ex. Evaluate:

a) $\frac{3}{4} \div \frac{5}{2}$

b) $3\frac{1}{2} \div 5\frac{1}{4}$

c) $5 \div 3\frac{1}{3}$

Practice: Worksheets – on sheet or separate; show pre-cancelling when ×; show change to × reciprocal when ÷