B2A2

Lesson Title 1.3 Fractions & Mixed Numbers Day One Date _____

VOCABULARY

Fraction: quotient of 2 #'s; part of a whole

Denominator: bottom of fraction; what makes the whole

numerator: top of fraction, what we have of the whole

factors: two values multiplied together

product: the value after 2 #'s are multiplied

Simplest form / lowest term: when a fraction has nothing else in common in numerator & denominator

prime numbers: the only factors are 1 and itself

composite number: all #'s that are not prime

prime factorization: break down a composite number using only prime #'s

Reciprocal: Flip of the numerator & denominator

KCF: Keep (the 1st fraction), Change (÷ → ×), Flip (the second fraction) when dividing two fractions

Examples

Task 1 Prime factorization.

a) $40 = 5 \cdot 2 \cdot 2 \cdot 2$ (5 & 8; 8 → $2 \cdot 2 \cdot 2$)

b) $63 = 7 \cdot 3 \cdot 3$ (9 & 7; 9 → 3 3)

c) $36 = 2 \cdot 2 \cdot 3 \cdot 3$ (9 & 4; 9 → $3 \cdot 3$; 4 → $2 \cdot 2$)

d) $200 = 2 \cdot 2 \cdot 2 \cdot 5 \cdot 5$ (20 & 10; 20 → 5 & 4; 4 → $2 \cdot 2$; 10 → 5 & 2)

Task 2: simplify.

a) $\frac{42}{49} = \frac{7 \cdot 6}{7 \cdot 7} = \boxed{\frac{6}{7}}$

b) $\boxed{\frac{11}{27}}$ Prime

c) $\frac{88}{20} = \frac{11 \cdot 2 \cdot 2 \cdot 2}{5 \cdot 2 \cdot 2} = \boxed{\frac{22}{5}}$

d) $\frac{63}{72} = \frac{3 \cdot 3 \cdot 7}{3 \cdot 3 \cdot 2 \cdot 2 \cdot 2} = \boxed{\frac{7}{8}}$

e) $\frac{64}{12} = \frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 3} = \boxed{\frac{16}{3}}$

f) $\boxed{\frac{7}{25}}$ Prime

Task 3 Multiply & simplify

a) $\frac{2}{15} \cdot \frac{5}{13} = \frac{2 \cdot 5}{3 \cdot 5 \cdot 13} = \boxed{\frac{2}{39}}$

b) $\frac{3}{8} \cdot \frac{7}{9} = \frac{3 \cdot 7}{2 \cdot 2 \cdot 2 \cdot 3 \cdot 3} = \boxed{\frac{7}{24}}$

Task 4 ÷ & simplify (KCF)

a) $\frac{4}{5} \div \frac{5}{16}$ $\quad \frac{4}{5} \cdot \frac{16}{5} = \boxed{\frac{64}{25}}$

b) $\frac{7}{10} \div 14$ $\quad \frac{7}{10} \cdot \frac{1}{14} = \frac{7}{140} = \boxed{\frac{1}{20}}$

c) $\frac{3}{8} \div \frac{3}{10}$ $\quad \frac{3}{8} \cdot \frac{10}{3} = \frac{30}{24} = \boxed{\frac{5}{4}}$

d) $\frac{3}{4} \div \frac{4}{9}$ $\quad \frac{3}{4} \cdot \frac{9}{4} = \boxed{\frac{27}{16}}$

e) $\frac{5}{12} \div 15$ $\quad \frac{5}{12} \cdot \frac{1}{15} = \frac{5}{180} = \boxed{\frac{1}{36}}$

Still need help with: