ENTRY CARD!

On a separate piece of paper, please copy questions and write your solutions. Then submit to me!

1. Evaluate each of the expressions:

a) 2 + (-3) + 4 = **b)** 7 – (-2) = **c)** -5 x -2 = **d)** 14 ÷ -7 =

2. Simplify. (Remember BEDMAS!)

a) 3 x (1 + 6) = **b)** 6(-5) + 2(-1) **c)** 2(3)(4) + 1

d) $2(6) - (1 - 3)^2 =$ **e)** $\frac{2+6}{8-4} + \frac{10+4}{2+5}$

UNIT 1: Solving Algebraic Equations

Review of Exponents

Learning Goal:

I will learn how to calculate equations with exponents.

Lesson: Review of Exponents

Factors: Terms that are multiplied together.

Example: 6 x 2 = 12 ⇨ 6 and 2 are factors of 12

Power: A repeated multiplication of equal factors (the same number)

$3 \times 3 \times 3 \times 3 = 3^4$ ⇨ 3^4 is the power

⇨ 3 is the base

⇨ 4 is the exponent

Examples:

a) 6^3 **b)** $(-3)^2$ **c)** $\left(\frac{4}{5}\right)^2$ **d)** $2^2 \times 3^2$ **e)** $6^2 + 3^2$

You Try!

a) 4^3 **b)** $(-2)^3$ **c)** $\left(\frac{2}{3}\right)^3$ **d)** $2^4 \times 3^3$ **e)** $5^2 + 2^3$

UNIT 1: Solving Algebraic Equations

Review of Fractions

Learning Goal:

I will learn how to add, subtract, divide, and multiply fractions.

Lesson: Review of Fractions

Numerator and Denominator: $\frac{4}{5}$ ← Numerator, ← Denominator

Least Common Denominator: The smallest multiple that all denominators can be divided into evenly.

What is the **least common denominator** (LCD) for $\frac{3}{8}$ and $\frac{7}{12}$?

Multiples of **8** include: 8, 16, **24**, 32

Multiples of **12** include: 12, **24**, 36

⇦ LCD is: **24**

Example: Change $\frac{3}{8}$ and $\frac{7}{12}$ to a common denominator of 24.

Adding and Subtracting Fractions

- You must have **common denominators**
- You add or subtract the numerators, and the denominators stay the same

Examples:

a) $\frac{1}{5} + \frac{3}{5}$ **b)** $\frac{2}{3} - \frac{4}{9}$ **c)** $\frac{5}{8} - \frac{3}{5}$

You try!

a) $\frac{1}{6} - \frac{2}{6}$ **b)** $\frac{2}{4} + \frac{5}{8}$ **c)** $\frac{8}{4} + \frac{2}{6}$

Multiplying and Dividing Fractions

- You must multiply the tops together, and multiply the bottoms
- Trick for dividing - flip the second fraction, then multiply

Examples:

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

You try!

a) $\frac{1}{5} \times \frac{2}{3}$ **b)** $\frac{3}{4} \times \frac{5}{3}$ **c)** $\frac{2}{4} \div \frac{2}{6}$

UNIT 1: Solving Algebraic Equations

Review of Fractions

Learning Goal:

I will learn how to add, subtract, divide, and multiply fractions.

Success Criteria:

To be successful, I must be able to...

- Find the common denominator to add or subtract fractions
- Multiply the tops and bottoms to multiply fractions
- Flip the second fraction and then multiply, to divide fractions

Example:

$\frac{1}{4} + \frac{3}{8}$

Practice Questions

*Copy questions with your solutions

Least Common Denominator:
Find the least common denominator for each pair:

a) $\frac{1}{6}$ and $\frac{2}{5}$

b) $\frac{3}{7}$ and $\frac{1}{4}$

c) $\frac{4}{9}$ and $\frac{5}{12}$

d) $\frac{7}{10}$ and $\frac{8}{15}$

Adding and Subtracting Fractions:
Remember to check for common denominators!!

a) $\frac{2}{3}+\frac{1}{6}$

b) $\frac{3}{10}+\frac{1}{2}$

c) $\frac{1}{4}+\frac{2}{5}+\frac{1}{10}$

d) $\frac{5}{12}+\frac{1}{6}+\frac{1}{4}$

e) $\frac{3}{4}-\frac{3}{5}$

f) $\frac{5}{6}-\frac{1}{3}$

Multiplying and Dividing Fractions: Remember the trick to dividing!!!
Express answers in lowest terms.

a) $\frac{5}{9}\times\frac{2}{7}$

b) $\frac{2}{15}\times\frac{3}{10}$

c) $\frac{9}{20}\times\frac{4}{5}$

d) $\frac{2}{5}\times\frac{3}{4}\times\frac{1}{2}$

e) $\frac{2}{9}\div\frac{5}{6}$

f) $\frac{3}{10}\div\frac{2}{5}$