

G05_Module 11 _Skills to Focus on

Lesson 1: Relate Fractions to Division.

A whole number divided by a whole number can be written as a fraction. $\frac{2}{6} = 2 \div 6$

Lesson 2: Solve Problems involving division

What is the thing you are dividing? Put it first then divide by how many.

- If the remainder can be shared or cut use a mixed fraction.

- If the remainder cannot be shared or cut leave as remainder.

$$26 \div 9 = 2 \text{ r. } 8$$

$$\frac{26}{9} = 2 \frac{8}{9}$$

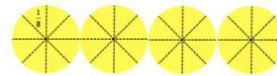
Lesson 3&4: Divide Whole Numbers by Fractions

If it starts with a Whole number, the answer will be a whole number.

Fraction model will show many wholes

Example, $4 \div \frac{1}{8}$.

There are 4 pizzas. Each slice is $\frac{1}{8}$ of a pizza. There are 32 slices.



$$4 \div \frac{1}{8} = 4 \times \frac{8}{1} = 32$$

Lesson 5&6: Divide Fractions by Whole Numbers

If it starts with a fraction, the answer will be a fraction.

Fraction model will show ONE whole

Example, $\frac{1}{2} \div 8 = \frac{1}{16}$

Half a pizza divided among 8 girls. Each girl will have $\frac{1}{16}$ of the pizza.



$$\frac{1}{2} \div 8 = \frac{1}{2} \times \frac{1}{8} = \frac{1}{16}$$

Lesson 7: Solve problems involving fractions

What thing are you dividing? Is it a whole or fraction? Put it first

How many are you dividing it into? Put it after the \div sign.

G05_Module 12_Skills to Focus on

Converting Customary Units

Customary Measurements

Length

1 foot = 12 inches
1 yard = 3 feet
1 mile = 1,760 yards

Weight

1 pound = 16 ounces
1 ton = 2,000 pounds

Capacity

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

Small → big \div
big → small \times

Convert 48 pt to gal

$$48 \text{ pt} = (48 \div 2) \text{ qt} = 24 \text{ qt}$$

$$24 \text{ qt} = (24 \div 4) \text{ gal} = 6 \text{ gal}$$

Converting Metric Units

Length

1 kilometer = 1,000 meters
1 meter = 100 centimeters
1 centimeter = 10 millimeters

Mass

1 kilogram = 1,000 grams
1 gram = 1,000 milligrams

Capacity

1 liter = 1,000 milliliters

Small → big \div
big → small \times

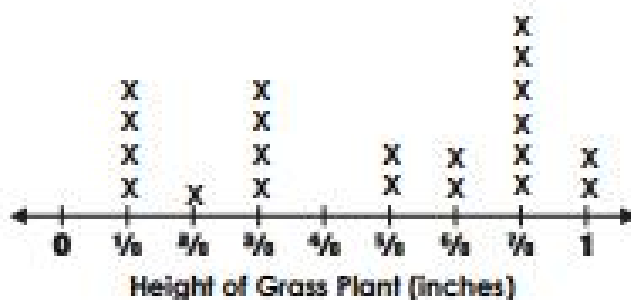
⇐ Moves to the LEFT $\times 10$

$$\begin{aligned} 20,000 \text{ m} &= ? \text{ km} \\ 1,000 \text{ m} &= 1 \text{ km} \\ \frac{20,000}{1,000} &= 20 \text{ km} \end{aligned}$$

⇒ Moves to the RIGHT $\div 10$

$$\begin{aligned} 4 \text{ m} &= ? \text{ cm} \\ 1 \text{ m} &= 100 \text{ cm} \\ 4 \times 100 &= 400 \text{ cm} \end{aligned}$$

Represent & Solve Problems Involving Measurement Data on a Line Plot



a) How many plants are greater than $\frac{1}{2}$ inch? 12 plants

b) How many different plants were included in this data set? 21 plants

c) White height shows up most frequently? $\frac{7}{8}$ in

How many: count the number of X

What/Which Q's: use the numbers on the plot line to solve

Greater than: only bigger numbers.

Greater or equal: number + bigger numbers

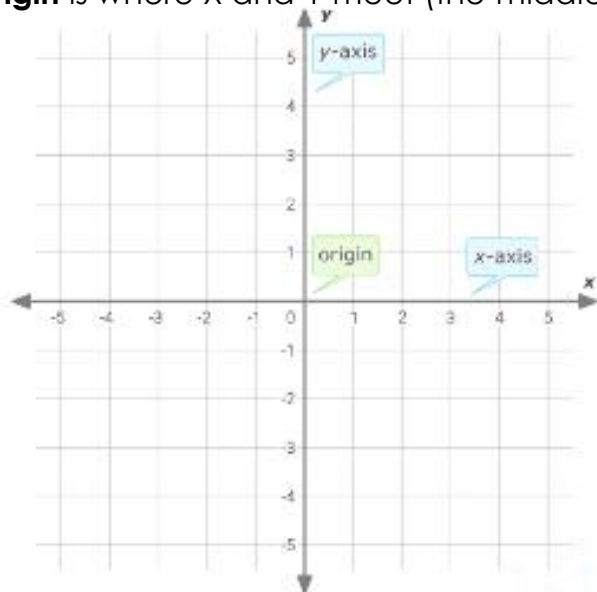
G05_MODULE 13_SKILLS to FOCUS on

The Coordinate Plane

X-axis is horizontal. Goes from left to right.

Y-axis is vertical. Goes from up to down.

Origin is where X and Y meet (the middle)

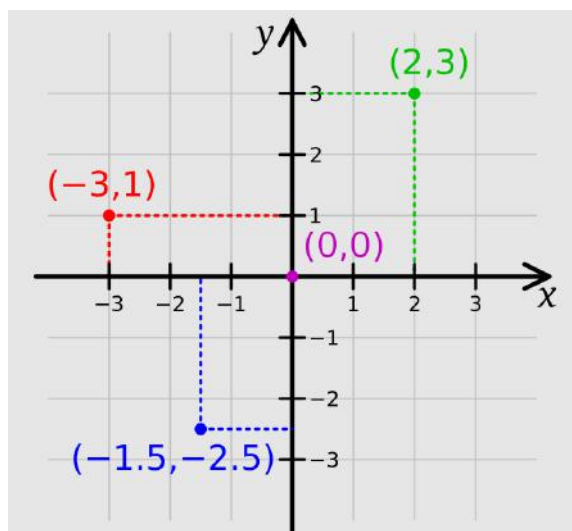


Ordered Pairs

The first number is the x-coordinate.

The second number is the y-coordinate.

(x, y)



Plot Ordered Pairs

1. start at origin
2. trace x-axis
3. trace y-axis

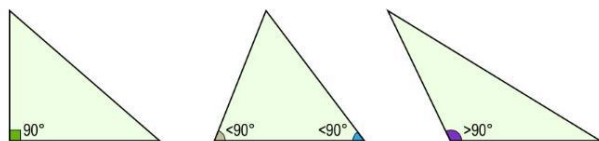
Triangles

3 sides & 3 angles

Triangles can be classified by side length and by angles

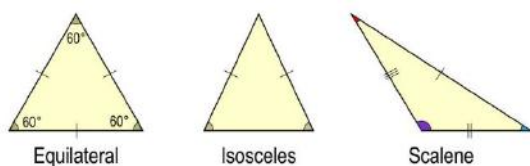
Angles

- Acute Angle. < 90
- Right Angle. $= 90$
- Obtuse Angle > 90



Sides:

- Equilateral: all 3 sides equal
- Isosceles: only 2 sides equal
- Scalene: No (0) sides equal



Quadrilaterals

4 sides & 4 angles

Quadrilaterals can be classified by side length, parallel and angles

- **Trapezoid:** 1 Parallel Pair



- **Parallelogram:** 2 Parallel Pairs



- **Rhombus:** 4 equal sides only



- **Rectangle:** 4 equal angles only



Square

4 equal sides + 4 equal angles



G05_MODULE 14_SKILLS to FOCUS on

Write and Interpret Numerical Expressions

Operation	Words to help you
(+) Addition	Add, More, Sum, Total, Increase
(-) Subtraction	Subtract, Less, Minus, Difference, Decrease
(×) Multiplication	Multiply, Times, Product
(÷) Division	Divide, Share, Quotient

The sum of nine and five multiplied by three

This should be done first → **the sum of nine and five**

Then, whatever the answer is → **multiply it by three**

The operation that must be done first must be enclosed in parentheses.

(The sum of nine and five) multiplied by three

$$(9 + 5) \times 3$$

$$24 \div (8 - 4)$$

Twenty four divided by the difference of eight and four

Evaluating Numerical Expressions (PEMDAS)

When evaluating numerical expressions, you must solve them in the correct order.

1. Solve all Parentheses
2. Solve all Multiplication & Division
3. Solve all Addition & Subtraction

P

Parentheses, Brackets, and Groupings



E

Exponents



M
D

Multiplication/Division

(perform left to right depending on which operation comes first)



A
S

Addition/Subtraction

(perform left to right depending on which operation comes first)



Identifying and Relating Numerical Patterns

Starting at zero and using the rule, "Add 3," we get the sequence:

0, 3, 6, 9, 12, 15, 18, 21....

Starting at zero and using the rule, "Add 6," we get the sequence:

0, 6, 12, 18, 24, 30, 36, 42....

The corresponding terms are circled below.

0, 3, 6, 9, 12, 15, 18, 21...
0, 6, 12, 18, 24, 30, 36, 42..

The relationship between the two patterns is Multiply by 2 (X 2)

A Numerical Pattern shows a RULE used on and ordered set of numbers.

If the terms are increasing, then

+ OR ×

If the terms are decreasing, then

- OR ÷

0, 2, 4, 6, 8, 10, 12, 14, 16, ..
0, 10, 20, 30, 40, 50, 60, 70, 80, ..

The relationship between the two patterns is Multiply by 5 (X 5)