April 23, 2021

7th Grade
April 23, 2021

Today we will:

-Review HW

-Take video notes in class

-Work in ALEKS on time and topics/ organize binder/ study

HOMEWORK:

ALEKS time and topics assignment due Monday

7L: Test Wednesday
7R: Test Thursday

April 23, 2021

HOMEWORK

Name _____

Unit ___ Lesson _____ Due Date _____

Lesson 4 Skills Practice
Direct Variation

Determine if the relationship between the two quantities is a direct variation. Explain your reasoning.

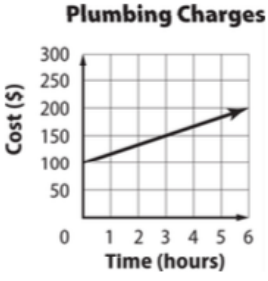
1.

Pints	Cups
x	y
1	2
2	4
3	6
4	8

$\frac{y}{x}$ = all the way down?

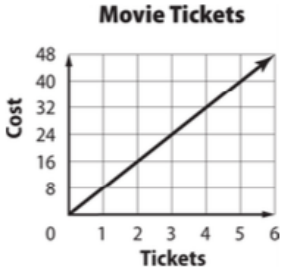
yes - ratio is $\frac{2}{1}$

2.



No - not through origin

3.



yes - line through origin

4.

Width (ft)	Height (in.)
x	y
5	10
8	14
10	22
12	30

No

$\frac{y}{x}$ not the same all the way down

For each equation, determine if there is a constant of variation. If so, explain what it represents.

5. The equation $y = 9.50x$ represents the number of dollars y Marty paid for x movie tickets.

const: 9.50 $9.50 per ticket

6. The equation $y = 0.10x + 45$ represents the cost y of a cell phone plan when x text messages are sent and received.

No constant

7. The equation $y = 24x$ represents the number of bottles of water y in x packages.

const = 24 24 bottles per package

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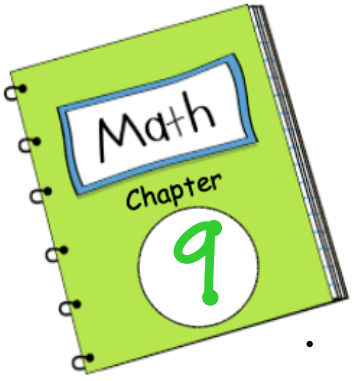


TITLE: Functions

Date	Lesson	Topic/Assignment
4/12	1	Functions Video Notes
4/13	1	HOMEWORK: Pg 387 WS
4/13	1	CLASSWORK: Skills Practice WS
4/14	2	Rep of Functions Video Notes and In-Class Notes
4/15	2	HOMEWORK: Pg 393 WS
4/15	2	HOMEWORK: Skills Practice WS
4/19	2	CLASSWORK: Skills Practice WS
4/20	3	Slope Video Notes
4/21	3	HOMEWORK: Reteach and HW Practice WS
4/22	4	Direct Variation Video and Class Notes
4/23	4	HOMEWORK: Skills WS
4/23	5	Slope-Intercept Form Video Notes

Task #1: Check completed notes/HW and put in notebook if it is not already.

Slope-Intercept Form Video Notes, Ch9 Lesson 4, May 6

Slope-Intercept Form

$y = mx + b$

- m: slope — rise/run $= \frac{y_2 - y_1}{x_2 - x_1}$
- b: y-intercept (where line crosses the y-axis. $x = 0$)

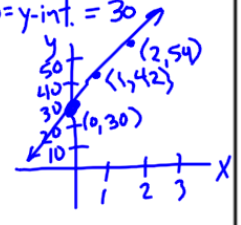
Always solve your equation for y!

Slope is +, the Line goes up
Slope is -, Line goes down

Graph $y = 12x + 30$.

$m = 12 = \frac{\text{rise}}{\text{run}} = \frac{12}{1}$

b = y-int. = 30



The sign in front of "b" always goes with the y-intercept making it positive or negative.

What is the slope and y-intercept?

$y = \frac{1}{4}x - 6$

$m = \frac{1}{4}$

$b = -6$

$y = 3x + 1$

Slope = $m = 3$

$b = 1$

$y = -2x$

$m = -2$

$b = 0$

Change to Slope-intercept form.

$6x + y = -3 + 6x$

$-6x \quad -6x$

$y = -6x - 3$

$m = -6 \quad b = -3$

$y - 5 = -x$

$+5 \quad +5$

$y = -x + 5$

$m = -1 \quad b = 5$

$3x - 2y = 6$

$-3x \quad -3x$

$\frac{-2y}{-2} = \frac{-3x}{-2} + \frac{6}{-2}$

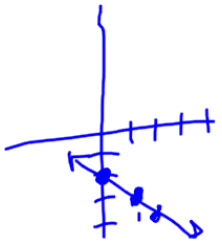
$y = \frac{3}{2}x - 3$

$m = \frac{3}{2} \quad b = -3$

Graph $y = -x - 2$.

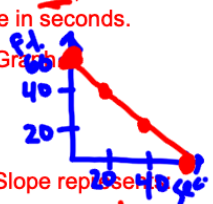
$m = -1 \quad b = -2$

$\frac{\text{rise}}{\text{run}} = \frac{-1}{1}$



A kite is flying 60 ft. in the air but is falling. The altitude of the kite can be represented by $y = -x + 60$, where x is time in seconds.

1) Graph



2) Slope represents: How much falling (ft/s)

3) y-intercept represents: altitude of kite at the start

Extend Page

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