

dec 3, 2020

Dividing Integers



Nazir splits his 4 cookies over 2 people.

$$\frac{4 \text{ cookies}}{2 \text{ ppl}} \text{ "over"}$$

$$2 \text{ cookies/person}$$

"per" 20 km/h
per

Blithe has a debt of \$800.
- \$800

Her debt split over 2 people is -400\$

$$\frac{-800\$}{2 \text{ ppl}} = -400\$ / \text{person} = \frac{-400\$}{\text{person}}$$

Her debt split over 0 ppl. How much will each person pay?

$$\frac{-800\$}{0 \text{ ppl}} = \text{error. undefined.}$$

0\$ split between 2 people?

$$\frac{0\$}{2 \text{ ppl}} = 0\$$$

Dividing with the Integer 0

• when zero is in
bottom / denominator

e.x. $\frac{800}{0}$

error

~~error~~ $\neq 0$

• when zero is in
top / numerator

e.x. $\frac{0}{2}$

0

Dividing with Positive / Negative Signs

e.x. $\frac{800}{2} = 400$

e.x. $-\frac{800}{2} = -400$

e.x. $\frac{800}{-2} = -400$

e.x. $\frac{-800}{-2} = 400$

law of signs		
$\frac{+}{+}$	=	+
$\frac{-}{+}$	=	-
$\frac{+}{-}$	=	-
$\frac{-}{-}$	=	+

Do
page

5.5

-5.6

in
multiplying
and
Division

(check
answer
in
back)

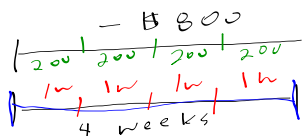
2. Describe the operations to be performed in the following problems and find the answers without a calculator. Then verify your answers using a calculator.

b) Over a period of four weeks, Paul withdrew money from the bank. His withdrawals totalled **-\$800**. What was Paul's average weekly withdrawal?

"per week"
"per each one week"

$$\frac{-\$800}{4 \text{ weeks}} = \frac{-200\$}{1 \text{ week}}$$

$$= -\$200/\text{week}$$



d) Environment Canada added the maximum daily temperatures for a week. The sum of this data was **-42°C**. What was the average maximum temperature for that week? "per day"

.....
Answer:

$$\begin{matrix} \text{mon} & \text{tues} & \text{wed} & \text{thu} & \text{fri} & \text{sat} & \text{sun} \\ \text{max} & + & \text{max} & + & \text{"} & + & \text{"} & + & \text{"} & + & \text{"} & = & -42^\circ\text{C} \\ \text{temp} & & \text{temp} & & & & & & & & & & \text{7 day} \\ & & & & & & & & & & & & \\ & & & & & & & & & & & & = -6^\circ\text{/day} \end{matrix}$$

Evaluating Operations on Integers

e.x. evaluate:

$$-4 + \underline{10 \div 5} - \underline{2 \times 3} \times 6 - (-8)$$

$$-4 + 2 - \underline{6 \times 6} - (-8)$$

$$\underline{-4 + 2} - 36 - (-8)$$

$$\underline{-2 - 36} - (-8)$$

$$\underline{-2 + (-36)} + 8$$

$$\underline{-38 + 8}$$

$$-30$$

steps

10

x

x

go left to right (+)

rewrite as addition.

step i.

Read the expression to know which operation $+/-/ \times \div$

step ii underline which operation to do first:
How To Know??
Follow the order of operation

- ① Bracket
- ② Exponents
- ③ Division
- ④ Multiplication
- ⑤ Addition
- ⑥ Subtraction

Do just
pg 6.3 - 6.4

Evaluating Brackets inside of Brackets

e.x.

$$[3 - 2(6 - 3) - (4(-2))] + 1$$

$$[3 - 2(3) - (-8)] + 1$$

① B Do smallest
E bracket
D first.
M Here
A the blue
S