

Create an example with the class. Give me all the numbers between 1 and 10. What are 4 basic operations? Okay, let's take two numbers and do something with them.

Highlight: division has limited options; some numbers, there's only one way to get them

19, 32, -6, 3, 8

17, 2, 21, 3, 2

÷ •

14, -1, 20, 16, 10

(+, -, •, +, ÷)

4	÷		2	=		2
9	-		6	=		3
7	×		1	=		7
10	-		3	=		7
2	+		5	=		7

Now all odd numbers must be negative. Start with giving all signs.

-7	+		-9	=		-16
6	÷		-3	=		-2
-5	×		-1	=		5
6	+		8	=		14
2	-		4	=		-2

Save: the order of what students did.

6	+		-9	=		-3
5	×		-3	=		-15
8	÷		2	=		4
-1	-		4	=		-5
10	-		-7	=		17

-1	×		2	=		-2
-9	-		-7	=		-2
6	÷		-3	=		-2
8	-		10	=		-2

4	+	-5	=	-1
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10	+	-9	=	1
6	÷	-3	=	-2
4	-	-7	=	11
8	÷	2	=	4
-1	×	-5	=	5

Consolidation: (in the manner of Peters' new-in-2023 way to consolidate after thin slicing)

Which one of these would you try to solve first? Which operations go with any of these answers?

			=	54
			=	-6
			=	13

Do 1st: Must be multiplication

Do 3rd: Must be subtraction
1-7 or 2-8 or 4-10

Do 2nd: Must be addition. Possibilities:
10+3 or 8+5 (9 and 6 are taken)

Now which operation have we not used? (Division)

So we've used 9 and 6. What numbers can we use for division? (10, 8, 4, 5, and 2). Last two numbers are 4 and 9. Which is the one we get by division? (Send them to annotate or CYU this)

- Multiplication and Addition give us larger answers,
- Division and Subtraction give us smaller answers.
- Except when? (when mult/div by 1)
- Good strategy is to list all possible ways to get something.

CYU: Spreadsheet to generate problems:

https://docs.google.com/spreadsheets/d/1MucZp6XVh50UGefEX7x8mP3uhIOQ6hPv/edit?usp=drive_link&oid=106053485084789476927&rtpof=true&sd=true

CYU worksheet with only positives:

https://docs.google.com/document/d/15hkLdXUtrdj5M7AjLzYdMXeL2B47jmS_/edit?usp=drive_link&oid=106053485084789476927&rtpof=true&sd=true

CYU worksheet with integers:

https://docs.google.com/document/d/1L9hSiSWubdWTIN6VvkGUrRR-G6QS9XCX/edit?usp=drive_link&oid=106053485084789476927&rtpof=true&sd=true