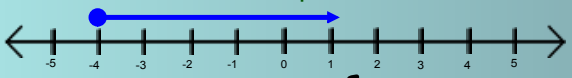
1) What is the range of the following data set:

34, 56,78,88,88,90,95,102

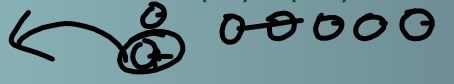
102 − 34 = 68

2) What is the addition equation for the number line?



(−4) + (+5)

3) Represent the subtraction equation with counters: (-5) - (+1)



-6

4) (+8) - (+9) = +17

5) 56 ÷ 7 8

6) 62 X 0.5 31

7) What is the median for the data set : 3,4,5,5,6,7

5 + 5 = 10 ÷ 2 = 5

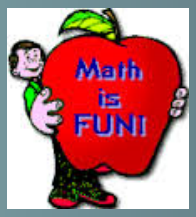
8) What number is divisible by 4? a) 310 b)918 c) 608

9) What number is divisible by 6? a)932 b)342 c)502

10) 1/4 of 8

14 9 7

8 ÷ 4 = 2



$\frac{4}{5} \times \frac{2}{2} = \frac{8}{10} = 0.8$

$\frac{4}{5} \approx 0.6$

What is a repeating decimal?
Give an example.

What is a terminating decimal?
Give an example.

0.2

$0.4 = \frac{4}{10}$

$0.67 = \frac{67}{100}$

3.2 Comparing and Ordering Fractions and Decimals

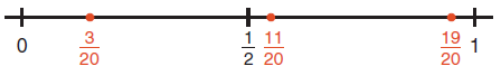
Focus Use benchmarks, place value, and equivalent fractions to compare and order fractions and decimals.

Recall how to use the benchmarks 0, $\frac{1}{2}$, and 1 to compare fractions.

For example, $\frac{3}{20}$ is close to 0 because the numerator is much less than the denominator.

$\frac{11}{20}$ is close to $\frac{1}{2}$ because the numerator is about $\frac{1}{2}$ the denominator.

$\frac{19}{20}$ is close to 1 because the numerator and denominator are close in value.



together

$\frac{17}{25}, \frac{4}{25}, \frac{24}{25}$

$\frac{1}{4}, \frac{3}{5}, \frac{1}{6}$

0.6

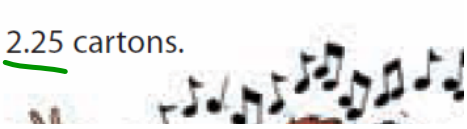
Use any materials to help.

Dusan, Sasha, and Kimberley sold chocolate bars as a fund-raiser for their choir.

The bars were packaged in cartons, but sold individually.

Dusan sold $2\frac{2}{3}$ cartons. Sasha sold $\frac{5}{2}$ cartons. Kimberley sold 2.25 cartons.

Who sold the most chocolate bars?



$2\frac{2}{3} = 2.\overline{6}$ - Dusun sold the most.

$\frac{5}{2} = 2.5$

2.25

Example

a) Write these numbers in order from least to greatest: $\frac{7}{8}, \frac{9}{8}, 1\frac{1}{4}, 0.75$

$\frac{7}{8} = 0.875$

1.250

1.125

$0.75, \frac{7}{8}, \frac{9}{8}, 1\frac{1}{4}$

$\frac{9}{8} = 1.125$

$1\frac{1}{4} = 1.250$

$0.75 = 0.75$

We can also use place value to order decimals.

a) Write each number as a decimal.

$\frac{7}{8} = 0.875$ $\frac{9}{8} = 1.125$ $1\frac{1}{4} = 1.25$ 0.75

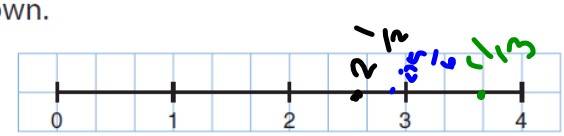
Write each decimal in a place-value chart.
Compare the ones.
Two numbers have 1 one and two numbers have 0 ones.

Ones	Tenths	Hundredths	Thousandths
0	8	7	5
1	1	2	5
1	2	5	0
0	7	5	0

Look at the decimals with 0 ones: 0.**8**75, 0.**7**50
Compare the tenths: 7 tenths is less than 8 tenths, so 0.750 < 0.875

Look at the decimals with 1 one: 1.**1**25 and 1.**2**50
Compare the tenths: 1 tenth is less than 2 tenths, so 1.125 < 1.250

2. Use 1-cm grid paper.
Draw a 12-cm number line like the one shown.
Use the number line to order these numbers from greatest to least.
$2\frac{1}{2}, \frac{11}{3}, 2\frac{5}{6}$



3. Use benchmarks and a number line to order each set of numbers from least to greatest.

a) $\frac{7}{6}, \frac{15}{12}, 1\frac{2}{9}, 1$ b) $1\frac{3}{4}, \frac{7}{3}, \frac{7}{6}, 2$ c) $\frac{7}{4}, \frac{15}{10}, \frac{11}{5}, 2$ d) $\frac{10}{4}, 2\frac{1}{3}, \frac{9}{2}, 3$

$2\frac{1}{2} = 2.5$

$\frac{11}{3} = 3.6\overline{6}$

$2\frac{5}{6} = 2.8\overline{3}$

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9. 2 to 5, 7 to 9

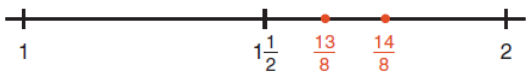
4. Use equivalent fractions.
Order each set of numbers from greatest to least.
Verify by writing each fraction as a decimal.

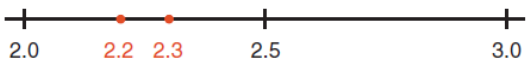
a) $3\frac{1}{2}, \frac{13}{4}, 3\frac{1}{8}$ b) $\frac{5}{6}, \frac{2}{3}, 1\frac{1}{12}, \frac{9}{12}$ c) $1\frac{2}{5}, \frac{4}{3}, \frac{3}{2}$

5. Use place value.
Order each set of numbers from least to greatest.
Verify by using a number line.

a) $\frac{7}{4}$, 1.6, $1\frac{4}{5}$, 1.25, 1 b) $2\frac{5}{8}$, 1.875, $2\frac{3}{4}, \frac{5}{2}$, 2

7. Find a number between the two numbers represented by each pair of dots.

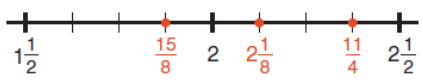
a) 

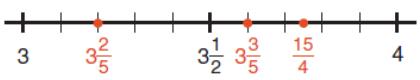
b) 

8. Find a number between each pair of numbers.

a) $\frac{5}{7}, \frac{6}{7}$ b) $1\frac{2}{5}, \frac{8}{5}$ c) $1.3, 1\frac{2}{5}$ d) $0.5, 0.6$

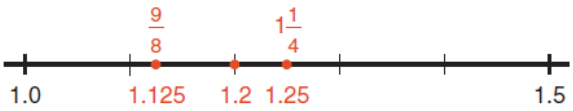
9. Identify the number that has been placed incorrectly.
Explain how you know.

a) 

b) 

b) Write a fraction between $\frac{9}{8}$ and $1\frac{1}{4}$.

b) $\frac{9}{8} = 1.125$ $1\frac{1}{4} = 1.25$



Use the number line above.

1.2 lies between 1.125 and 1.25.

Write 1.2 as a fraction.

1.2 is $1\frac{2}{10}$, or $1\frac{1}{5}$.

So, $1\frac{1}{5}$, or $\frac{6}{5}$, lies between $\frac{9}{8}$ and $1\frac{1}{4}$.

There are many other possible fractions between $\frac{9}{8}$ and $1\frac{1}{4}$.