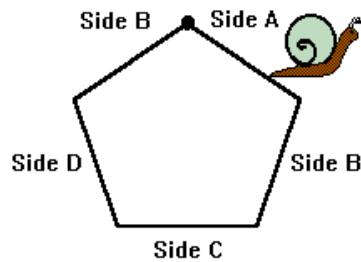


# Problem of the Day

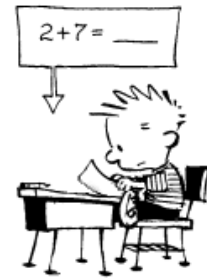
Shane the Snail started at the dot. What side will he be on when he has crawled  $\frac{13}{20}$  of the distance around the regular pentagon of equal sides?



- 1) If side A has a length of 2cm, then what is the perimeter of this pentagon?
- 2) If he has crawled  $\frac{13}{20}$  of the total distance (perimeter) then how far has he crawled? And what side would this have to be?

Let one side of a pentagon = 2 cm Therefore, perimeter =  $10\text{cm} \times (\frac{13}{20}) = 6.5\text{cm}$  SIDE D

12/8/09



Objective:

TSWBAT estimate sums and differences and estimate the difference of two measurements.

**Vocabulary:**

**benchmark:** a number that is close to a fraction and is easy to use when you estimate.

<b>Description</b>	<b>Examples</b>	<b>Benchmark</b>
Numerator is close to 0. Denominator is not close to 0.	$1/8, 3/16, 2/25, 9/100$	0
Numerator is about one half of the denominator.	$3/8, 9/16, 11/25, 52/100$	$1/2$
Numerator and denominator are close to each other.	$7/8, 14/16, 23/25, 95/100$	1

Estimate the sum or difference. Use the chart below to help you.

Description	Examples	Benchmark
Numerator is close to 0. Denominator is not close to 0.	$1/8$ , $3/16$ , $2/25$ , $9/100$	0
Numerator is about one half of the denominator.	$3/8$ , $9/16$ , $11/25$ , $52/100$	$1/2$
Numerator and denominator are close to each other.	$7/8$ , $14/16$ , $23/25$ , $95/100$	1

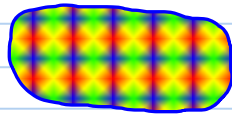
### Example # 1

$$7/12 + 4/5$$

a. Replace each fraction with a benchmark.



b. Add and simplify if necessary.

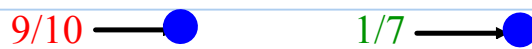


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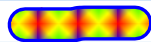
### Example #2

$$9/10 - 1/7$$

a. Replace each fraction with a benchmark.



b. Subtract and simplify if necessary.



Now try these on your own:

1.  $5/6 + 3/7$

2.  $12/13 - 2/25$



**\*\*If the fraction is less than 1/2 use the whole number given.**



**\*\*If the fraction is more than 1/2 round the whole number up 1.**



**Example:**

$$3 \frac{9}{16} - 1 \frac{1}{8}$$

$$3 \frac{9}{16} \longrightarrow \text{😊}$$

$$1 \frac{1}{8} \longleftarrow \text{😊}$$

$$\text{so } 4 - 1 = \text{😊}$$

**Now try these on your own:**

1.  $22 \frac{8}{14} - 14 \frac{3}{7}$

2.  $84 \frac{3}{36} + 41 \frac{7}{8}$

**Practice Problems:**

**Estimate the sum or difference. Use the benchmarks 0,  $\frac{1}{2}$ , and 1.**

1.  $\frac{5}{13} + \frac{4}{25}$

2.  $\frac{17}{19} - \frac{2}{13}$

**Estimate each sum or difference.**

3.  $4\frac{2}{9} + 6\frac{13}{27}$

4.  $9\frac{7}{15} - 3\frac{1}{2}$

# Homework:

## Reteach 4-1

