TH-PA Pre-Algebra Week 12 12/7

Whole Number Rounding

$7.86 Mountain Bike → $8

$23.31 Guitar → $23

$14.58 Deranged Rabbit → $15

$46

Front-End Estimation

$7.86 Mountain Bike → 0.90

$23.31 Guitar → 0.30

14.58 Deranged Rabbit → + 0.60

$1.80

$44

$44 + $1.80 = $45.80

Whole Number

$8.63 → $9

$5.78 → $6

$3.99 → $4

+

$19

Front-End

$8.63 → 0.60

$5.78 → 0.80

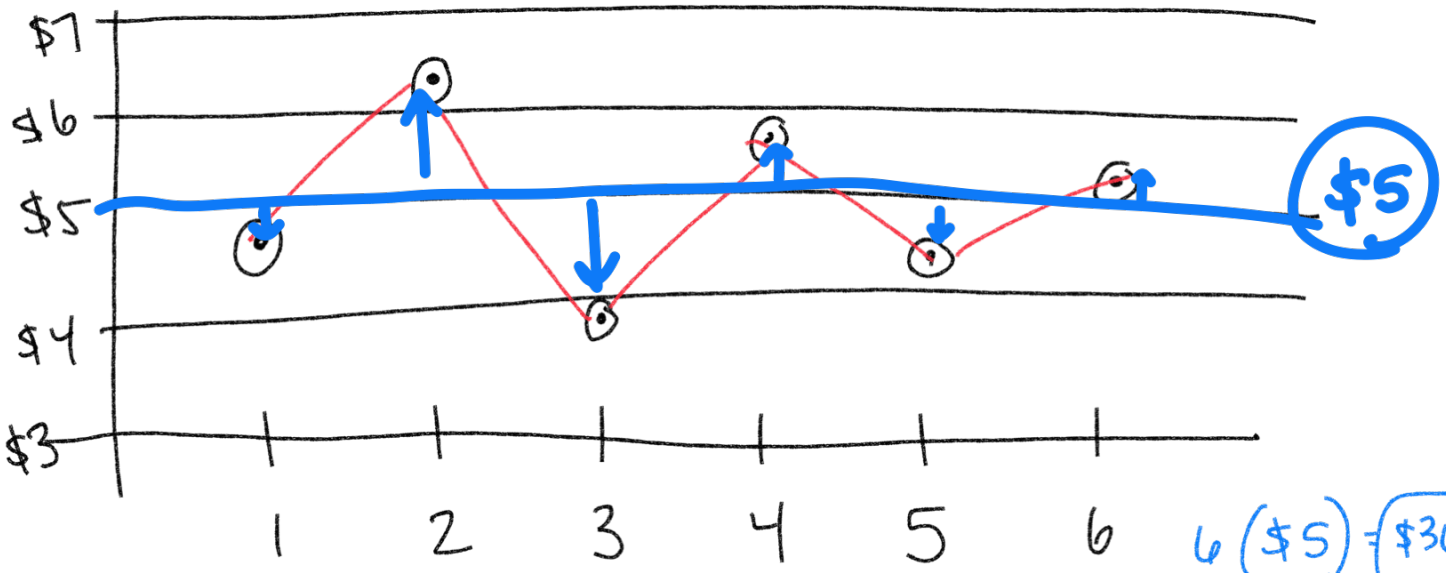
$3.99 → 1.00

+

$16 $2.40

$18.40

1 $4.80 2 $6.30 3 $3.95 4 $5.85 5 $4.26 6 $5.25



6 ($5) = $30

Estimate by Clustering

$21.40 + $22.08 + $18.98 + $19.35

cluster around: $20 sum: 4 * $20 : $80

Estimate

$7.8 * 11.95$

$\downarrow \quad \downarrow$

$8 * 12 = \boxed{96}$

Estimate

$74.8 \div 7.8$

$\downarrow \quad \downarrow$

$72 \div 8 = \boxed{9}$

Round the small number first!

8, 16, 24, 32, 40, 48, 56, 64, (72), 80

Estimate

$82 * 8.9$

$\downarrow \quad \downarrow$

$80 * 9 = \boxed{720}$

Be Lazy

$126.2 \div 23.9$

$\downarrow \quad \downarrow$

$120 \div 24 = \boxed{5}$

1 2 3 4 5

24, 48, 72, 96, (120), 144, 168....

$126.2 \div 23.9$

$\downarrow \quad \downarrow$

$125 \div 25 = \boxed{5}$

25, 50, 75, 100, [125], 150.

1.) $6.2 * 11.5$

$6 * 12 = \boxed{72}$

2.) $14.8 * 8.2$

$15 * 8 = \boxed{120}$

3.) $38.1 \div 6.3$

$36 \div 6 = \boxed{6}$

4.) $121.8 \div 19.6$

$120 \div 20 = \boxed{6}$

20, 40, 60, 80, 100, **120**, 140,

Mean Median Mode

Mean - Average = $\frac{\text{sum of all numbers}}{\text{\# of numbers}}$

Median - Middle Number (odd) Average of the Two Middle Numbers (even)

Mode - most frequent number

6, 3, 3, 12, 2, 36, 15, 20, 40

1st thing: Put this in order

2, 3, 3, 6, 12, 15, 20, 36, 40

2, 3, 3, 6, 12, 15, 20, 36, 40

1 1 1 1 1 1 1 1 1

1 2 3 4 5 6 7 8 9

Mean: $\frac{2+3+3+6+12+15+20+36+40}{9} = \frac{137}{9}$

$\boxed{15.2}$

Median: ~~2, 3, 3, 6,~~ 12 ~~, 15, 20, 36, 40~~

odd → middle number → $\boxed{12}$

Mode: $\boxed{3}$

14, 8, 12, 14, 8, 20, 8, 16

1st thing: ~~8, 8, 8,~~ 12, 14, ~~14, 16, 20~~

Mean: $\frac{8+8+8+12+14+14+16+20}{8} = \frac{100}{8} = \boxed{12.5}$

Median: $\frac{12+14}{2} = \frac{26}{2} = \boxed{13}$

Mode: $\boxed{8}$