

3-1 Rounding and Estimating

Questions/Main Ideas:	Notes:
<u>Standards:</u>	MR 2.1 use estimation to verify addition and subtraction MR 3.1 Evaluate solutions in context of original problems <u>Review?</u> thousandths hundredths tenths ones tenths hundredths thousandths
when do we round? When we don't need exact answers	<u>Rounding:</u> If rounding to nearest tenth look at value of hundredths place (its neighbor to the right) If that value is 5 or greater you round up otherwise stay the same <u>Ex:</u> Round nearest tenth 1) 123.476 (look at neighbor to right) 5 or bigger so round up 123.50 2) 476.338 (look at neighbor) not 5 or greater, keep same 476.34
which place to round to?	Estimating by rounding all numbers to same place value 1.) $355,302 \approx 360$ $+ 204,889 \approx 200$ 560 $355,302$ <div style="border: 1px solid black; padding: 5px; display: inline-block;"> \approx is approximately equal to or about equal to. </div> can use to check if your answer is reasonable
<u>Summary:</u>	can use to check if your answer is reasonable

3-1 continued.

Questions/Main Ideas:	Notes:
what is front-end estimating	<p>1.10 ① add front-end digits 1.73 → number to left of decimal 2.71 ② round to estimate the sum of the remaining digits</p>
	<p>So</p> $\begin{array}{r} 1. \quad + \quad 1. \\ 1 \quad \quad .7 \\ \underline{2} \quad \quad .7 \\ 4 \quad \quad 1.5 \quad \quad 5.5 \end{array}$ <p>Total is about 5.5</p>
	<p>TRY</p> <p>1) $6.75 + 2.2 + 9.58 \approx 18.6$ $6 + 2 + 9 + 0.8 + 0.2 + 0.6 = 18.6$</p> <p>2) $1.07 + 2.49 + 7.40 \approx 11.00$ $1 + 2 + 7 + 0.1 + 0.5 + 0.4 = 11$</p>
	<p>Clustering is estimating when several numbers are close to one value.</p>
	<p>Ex:</p> <p>15.35 all are close to 15 16.05 so 4.15 would give 14.90 us a cluster that 15.05 we could use to estimate ≈ 60 our total sum. $4.15 = 60$</p>
	<p>Try 1) $4.50 + 5.20 + 5.50 \approx 15$ $5 \cdot 3 = 15$</p> <p>2) $26.7 + 26.2 + 24.52 + 25.79 + 23.9$ ≈ 25.5</p>
Summary:	<p>125</p>

PB # 3-1
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