

Set A1 ★ Independent Worksheet 1



INDEPENDENT WORKSHEET

Using Compatible Numbers to Estimate Answers

Mathematicians sometimes estimate answers to addition and subtraction problems by using *compatible numbers*. Compatible numbers are numbers that work well together. If a pair of numbers is easy to add or subtract, those numbers are friendly or *compatible*. For example:

Tonio collects sports cards. He has 17 football cards and 26 baseball cards. *About* how many cards does he have in all? *About* how many more baseball than football cards does he have?

17 is close to 15

26 is close to 25

$15 + 25 = 40$, so he has about 40 cards in all.

$25 - 15 = 10$, so he has about 10 more baseball than football cards.

1 Use compatible numbers to estimate the answer to each problem below. To use this estimation strategy, change the actual numbers to *compatible* numbers. The first two are done for you.

<p>addition example $397 + 198$</p> <p>397 is close to <u>400</u>.</p> <p>198 is close to <u>200</u>.</p> <p><u>400</u> + <u>200</u> = <u>600</u>,</p> <p>so the answer is about <u>600</u>.</p>	<p>subtraction example $252 - 126$</p> <p>252 is close to <u>250</u>.</p> <p>126 is close to <u>125</u>.</p> <p><u>250</u> - <u>125</u> = <u>125</u>,</p> <p>so the answer is about <u>125</u>.</p>
<p>a $149 + 148$</p> <p>149 is close to _____.</p> <p>148 is close to _____.</p> <p>_____ + _____ = _____,</p> <p>so the answer is about _____.</p>	<p>b $481 - 138$</p> <p>481 is close to _____.</p> <p>138 is close to _____.</p> <p>_____ - _____ = _____,</p> <p>so the answer is about _____.</p>



<p>c $529 + 398$</p> <p>529 is close to _____.</p> <p>398 is close to _____.</p> <p>_____ + _____ = _____,</p> <p>so the answer is about _____.</p>	<p>d $652 - 249$</p> <p>652 is close to _____.</p> <p>249 is close to _____.</p> <p>_____ - _____ = _____,</p> <p>so the answer is about _____.</p>
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2 Use compatible numbers to estimate the answer to each problem below. Show your work.

a Sam and Sara are on vacation with their mom. They live in Seattle, Washington, and they're driving to Disneyland in California. The first day, they drove 172 miles to Portland, Oregon, and stopped for lunch. After they'd gone another 128 miles, they stopped for gas. *About* how many miles had they driven so far?

b They stopped in Ashland, Oregon to spend the night. It cost them \$74.99, including tax, to stay in a motel. Dinner cost \$24.97 for the three of them. Breakfast the next morning cost \$14.99. *About* how much money did they spend while they were in Ashland?

c After breakfast, their mom said, "We're going to stop near Sacramento for lunch. That's 295 miles from here." When they stopped for gas that morning they still had 147 miles left to go. *About* how many miles had they driven so far?

NAME _____



Independent Worksheet 1 Using Compatible Numbers to Estimate Answers (cont.)

d Sam and Sara took \$7.00 into the store at the gas station to buy snacks. They got some juice for \$2.99 and a bag of pretzels for \$1.49. Then Sara said, “Hey look! Let’s get 3 oranges too. They only cost 49¢ each.” *About* how much change did they get back after they paid for the juice, pretzels, and oranges?

e When they got back into the car their mom said, “The odometer on our car said 28,103 miles when we started. Now it says 28,601 miles. *About* how far have we driven so far?”

f Sara looked at the map and said, “We have 424 miles left to go until we get to Disneyland.” Her mom said, “We’re going to stop for lunch near Merced, which is 127 miles from here. *About* how much farther will we have to go after that?”