

Name (Answers may vary)

Date _____



Estimating Decimal Products

Directions: Look at the multiplication expression and the question about the expression. Answer "more than" or "less than" and give a reason without solving the multiplication problem.

1. Consider the expression 1.85×3.4 .
Will the answer be more or less than 10? Why?

I think the answer will be less than 10 because two times three is six.
I know that 1.85 is close to two
and 3.4 is close to three. When I multiply the whole numbers 2×3 , the product
is six. If I round both numbers up and multiply them ($2 \times 4 = 8$), the product will not
get close to 10. (The extra lines are for additional student explanations if necessary.)

2. Consider the expression 9.23×10.401 .
Will the answer be more or less than 80? Why?

I think the answer will be more than 80 because 9 times 10 is 90.
I know that 9.23 is close to 9
and 10.401 is close to 10. When I multiply the whole numbers 9×10 , the
product is 90. Also, I rounded down in both decimal numbers, so I know the numbers in
the tenths and hundredths place will make the product greater than 90. (The extra lines are for
additional student explanations if necessary.)

3. Consider the expression 5.03×6.9 .
Will the answer be more or less than 31? Why?

I think the answer will be more than 31 because five times seven is 35.
I know that 5.03 is close to five
and 6.9 is close to seven. When I multiply the whole numbers 5×7 , the product
is 35. I know the nine in the tenths place is very close to the whole number 7, so the
product for 5.03×6.9 will not be past 35 on a number line, but it will be greater than 31.