



Resource Overview

Quantile® Measure: 530Q

Skill or Concept: Estimate and compute products of whole numbers with 2- or 3-digit factors. (QT-N-170)

Excerpted from:



The Math Learning Center
PO Box 12929, Salem, Oregon 97309-0929
www.mathlearningcenter.org
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Set A5 ★ Activity 14



ACTIVITY

Multi-Digit Multiplication Post-Assessment

Overview

The pre-assessment given in Activity 1 is re-administered in somewhat different form during this activity. Students' work on the post-assessment will provide information about what they have learned, as well as the areas in which they need continued support.

Skills & Concepts

- ★ multiply by 10, 100, and 1000
- ★ multiply one- and two-digit numbers by numbers through 10 and by multiples of 10
- ★ multiply up to 3-digit by 1- and 2-digit numbers accurately using the standard algorithm
- ★ estimate products to approximate solutions and determine reasonableness of answers
- ★ solve single- and multi-step word problems involving multi-digit multiplication

You'll need

- ★ Multi-Digit Multiplication Post-Assessment (pages A5.100–A5.103, run a class set)
- ★ Multi-Digit Multiplication Post-Assessment Class Checklist (page A5.104, run 1 or 2 copies)
- ★ Multi-Digit Multiplication Pre- & Post-Assessment Scoring & Comparisons (optional, pages A5.11 and A5.12, run a class set)
- ★ Student Reflection Sheet: Multiplication (see note)
- ★ Base 10 Grid Paper (page A5.13, run as needed)

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Note If you had students fill out the Student Reflection Sheet (pages A5.14–A5.16) after the Multi-Digit Multiplication Pre-Assessment, plan to have them fill it out again when you return their scored post-assessments.

Instructions for Multi-Digit Multiplication Post-Assessment

1. Give each student a copy of the 4-page post-assessment and then read and review the tasks with the class. Have students write their names on their papers and circle each “doing” word as you read through the items together. Remind students that they'll need to check off each checkpoint as they complete the items.
2. Before they start to work, be sure students understand that they only need to circle and solve one combination in problems 2, 3, and 7. Take a minute, if necessary, to review the standard multiplication algorithm, because students are specifically asked to use that method to solve problems 2, 3, and 7. In problems 2 and 3, they're also asked to use a second method. You might take a minute to review some of the methods they've explored over the past few weeks: sketches on base 10 grid paper, freehand 4-part and 2-part area models, finding and adding 4 or 2 partial products, and so on. Tell students that you'll place a stack of base ten grid paper near each table or cluster of desks if they want to use it for any of the problems other than problem 7.
3. Remind students that you are available to re-read any of the directions or problems for them while they work. Advise them to complete the items they find easiest and most familiar first, even if that means skipping around a bit, and then return to the questions they find more challenging and writing “I don't know yet” if necessary.

Activity 14 Multi-Digit Multiplication Post-Assessment (cont.)

4. If you plan to score this assessment as suggested in “Looking at Student Work” below, let students know that you will be scoring their papers. In many of the problems, they will be given a point for the answer and a point for showing their work. In problems 2 and 3, they will get a point for using the standard algorithm to solve the combination they’ve selected, and another point for solving it using a different method. In problems 4 and 8, they need to estimate answers and explain their estimates; points will be given for the estimate and the explanation. While it may seem that this will create more test anxiety, we find that it is very helpful to students when we share our expectations before they start.

5. Give students the rest of the period to complete the assessment. Make sure your students understand what they are expected to do when they complete the assessment and where you want them to place their finished papers.

**LOOKING AT STUDENT WORK**

Below you’ll find an item-by-item answer key and scoring suggestions for this post-assessment. We generally use the percentage of points earned to determine whether a student is working at an advanced, proficient, basic, or novice level with regard to the material on the assessment. You may need to adjust the scoring system for this assessment to ensure that it reflects the expectations for fourth-graders in your district.

POINTS SCORED	PERCENTAGE OF TOTAL	LEVEL
29 – 32 points	90 – 100 %	Advanced (Working above grade level)
24 – 28 points	75 – 89%	Proficient (Working at grade level)
17 – 23 points	53 – 74%	Basic (Working toward grade level)
16 points or fewer	50% or lower	Novice (Working below grade level)

In addition to scoring these post-assessments, you may find it helpful to compare them to students’ pre-assessments. Although some students may not score particularly well on the post-assessment, you may find that they have actually made quite a bit of progress based on what they were able to do at the beginning of this collection of activities.

Activity 14 Multi-Digit Multiplication Post-Assessment (cont.)

PROBLEM 1	SCORING: 3 POINTS POSSIBLE
<p>1 There are 24 crayons in a box. There are 8 boxes of crayons in a jumbo pack. Mrs. Perez bought 4 jumbo packs of crayons for her class. How many crayons did she get in all?</p> <p>a ____ Solve the story problem above. Show your work with labeled sketches, numbers, and/or words.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: right;"> $\begin{array}{r} 24 \\ \times 8 \\ \hline 160 \\ + 32 \\ \hline 192 \end{array}$ </div> <div style="text-align: right;"> $\begin{array}{r} 192 \\ \times 4 \\ \hline 400 \\ + 360 \\ \hline 768 \end{array}$ </div> </div> <p>b ____ Mrs. Perez got <u>768</u> crayons in all.</p>	<ul style="list-style-type: none"> 1 point for a strategy that indicates the student understands this is a 2-step problem requiring two different calculations or sets of calculations 1 point for work that uses any combination of labeled sketches, numbers, and words to demonstrate how the solution was found 1 point for the correct answer, 768
<p>Comments</p> <p>It is possible for a student to score 2 points on this problem, even if she doesn't get the correct answer. One of the goals of multi-digit multiplication activities was to help students develop skills at solving multi-step problems. Even if the student makes errors in her calculations, using a strategy that reflects good understanding of the problem can be awarded 2 points.</p>	

PROBLEM 2	SCORING: 3 POINTS POSSIBLE
<p>2 Choose one of the problems below and circle it.</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-bottom: 10px;"> <div style="text-align: center;">$\begin{array}{r} 24 \\ \times 6 \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 32 \\ \times 8 \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 42 \\ \times 7 \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 99 \\ \times 5 \end{array}$</div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%; padding: 5px;"> <p>a ____ Use the standard algorithm to solve the problem you circled. Show all your work in the box below.</p> <p>Responses will vary. Sample for 32×8:</p> $\begin{array}{r} 1 \\ \times 32 \\ \times 8 \\ \hline 256 \end{array}$ </div> <div style="width: 45%; padding: 5px;"> <p>b ____ Use a different method to solve the problem you circled. Show all your work in the box below.</p> <p>$32 \times 2 = 64$ $64 \times 2 = 128$ $128 \times 2 = 256$</p> </div> </div> <p>c ____ Which method was easier and faster for you? Why?</p> <p>Responses will vary. Sample: The standard algorithm is faster, but doubling seems easier.</p>	<ul style="list-style-type: none"> 1 point for using the standard algorithm to get the correct answer 1 point for using any other method to get the correct answer (see Comments) 1 point for any reasonable response to the question about which method was easier and faster <p>Answers to the 4 problems</p> <ul style="list-style-type: none"> $6 \times 24 = 144$ $8 \times 32 = 256$ $7 \times 42 = 294$ $5 \times 99 = 495$
<p>Comments</p> <p>Possible strategies include a labeled sketch on base 10 grid paper, a freehand sketch of the area model divided into 4 or 2 parts, finding and adding 4 or 2 partial products, a basic facts strategy such as double-double-doubles, or repeated addition. Student who are still using repeated addition and are not yet using the standard algorithm for 1-by 2-digit multiplication accurately will need extra support to develop proficiency with this skill. (See Grade 4 Support Activity 22, Spin & Multiply. You'll find this activity at the back of the Grade 4 Number Corner Blacklines.)</p>	

PROBLEM 3	SCORING: 2 POINTS POSSIBLE
<p>3 Choose one of the problems below and circle it.</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-bottom: 10px;"> <div style="text-align: center;">$\begin{array}{r} 25 \\ \times 18 \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 33 \\ \times 23 \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 43 \\ \times 23 \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 51 \\ \times 32 \end{array}$</div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%; padding: 5px;"> <p>a ____ Use the standard algorithm to solve the problem you circled. Show all your work in the box below.</p> <p>Responses will vary. Sample for 51×32:</p> $\begin{array}{r} 51 \\ \times 32 \\ \hline 102 \\ + 1530 \\ \hline 1,632 \end{array}$ </div> <div style="width: 45%; padding: 5px;"> <p>b ____ Use a different method to solve the problem you circled. Show all your work in the box below.</p> $\begin{array}{r} 51 \\ \times 32 \\ \hline 1500 \\ 30 \\ 100 \\ \hline 1,632 \end{array}$ </div> </div>	<ul style="list-style-type: none"> 1 point for using the standard algorithm to get the correct answer 1 point for using any other method to get the correct answer (see Comments) <p>Answers to the 4 problems</p> <ul style="list-style-type: none"> $18 \times 25 = 450$ $23 \times 33 = 759$ $23 \times 43 = 989$ $32 \times 51 = 1,632$
<p>Comments</p> <p>Possible methods include a labeled sketch on base 10 grid paper, a freehand sketch of the area model divided into 4 or 2 parts, finding and adding 4 or 2 partial products, or repeated addition. Student who are still using repeated addition and are not yet using the standard algorithm for 2-by 2-digit multiplication accurately will need extra support to develop proficiency with this skill. (See Grade 5 Support Activities 31, Spin & Multiply Big Time, and 36, Multiplication Tic-Tac-Toe. You'll find these activities at the back of the Grade 5 Number Corner Blacklines.)</p>	

Activity 14 Multi-Digit Multiplication Post-Assessment (cont.)

PROBLEM 4	SCORING: 4 POINTS POSSIBLE		
<p>4 ____ Fill in the bubble to show the best estimate for each problem. Explain your choice.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: 1px solid black; padding: 5px;"> <p>a</p> $\begin{array}{r} 248 \\ \times 4 \\ \hline \end{array}$ <p style="font-size: small;">Why?</p> <p>Responses will vary. Sample: 4×200 is 800. Then 48 is almost like 50, and 4×50 is 200. 800 + 200 is 1,000 so that's what I picked.</p> </td> <td style="width: 50%; border: none;"> <p>b</p> $\begin{array}{r} 25 \\ \times 25 \\ \hline \end{array}$ <p style="font-size: small;">Why?</p> <p>Responses will vary. Sample: 20×25 is 500. Then 5×25 is 125. $500 + 125$ is 625 so 600 is the closest.</p> </td> </tr> </table>	<p>a</p> $\begin{array}{r} 248 \\ \times 4 \\ \hline \end{array}$ <p style="font-size: small;">Why?</p> <p>Responses will vary. Sample: 4×200 is 800. Then 48 is almost like 50, and 4×50 is 200. 800 + 200 is 1,000 so that's what I picked.</p>	<p>b</p> $\begin{array}{r} 25 \\ \times 25 \\ \hline \end{array}$ <p style="font-size: small;">Why?</p> <p>Responses will vary. Sample: 20×25 is 500. Then 5×25 is 125. $500 + 125$ is 625 so 600 is the closest.</p>	<ul style="list-style-type: none"> 1 point for selecting the closest estimate to each problem (1,000 and 600) 1 point for each reasonable explanation of the selected estimate (see Comments)
<p>a</p> $\begin{array}{r} 248 \\ \times 4 \\ \hline \end{array}$ <p style="font-size: small;">Why?</p> <p>Responses will vary. Sample: 4×200 is 800. Then 48 is almost like 50, and 4×50 is 200. 800 + 200 is 1,000 so that's what I picked.</p>	<p>b</p> $\begin{array}{r} 25 \\ \times 25 \\ \hline \end{array}$ <p style="font-size: small;">Why?</p> <p>Responses will vary. Sample: 20×25 is 500. Then 5×25 is 125. $500 + 125$ is 625 so 600 is the closest.</p>		
<p>Comments</p> <p>If a student hasn't chosen the closest estimate, but has given an explanation that demonstrates good number sense, consider awarding 1 point for the item.</p>			

PROBLEM 5	SCORING: 6 POINTS POSSIBLE						
<p>5 ____ Write the answer to each problem.</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 45 \\ \times 10 \\ \hline 450 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 10 \\ \times 50 \\ \hline 500 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 29 \\ \times 100 \\ \hline 2,900 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 100 \\ \times 60 \\ \hline 6,000 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 1,000 \\ \times 18 \\ \hline 18,000 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 60 \\ \times 1,000 \\ \hline 60,000 \end{array}$</td> </tr> </table>	$\begin{array}{r} 45 \\ \times 10 \\ \hline 450 \end{array}$	$\begin{array}{r} 10 \\ \times 50 \\ \hline 500 \end{array}$	$\begin{array}{r} 29 \\ \times 100 \\ \hline 2,900 \end{array}$	$\begin{array}{r} 100 \\ \times 60 \\ \hline 6,000 \end{array}$	$\begin{array}{r} 1,000 \\ \times 18 \\ \hline 18,000 \end{array}$	$\begin{array}{r} 60 \\ \times 1,000 \\ \hline 60,000 \end{array}$	<ul style="list-style-type: none"> 1 point for each correct answer
$\begin{array}{r} 45 \\ \times 10 \\ \hline 450 \end{array}$	$\begin{array}{r} 10 \\ \times 50 \\ \hline 500 \end{array}$	$\begin{array}{r} 29 \\ \times 100 \\ \hline 2,900 \end{array}$	$\begin{array}{r} 100 \\ \times 60 \\ \hline 6,000 \end{array}$	$\begin{array}{r} 1,000 \\ \times 18 \\ \hline 18,000 \end{array}$	$\begin{array}{r} 60 \\ \times 1,000 \\ \hline 60,000 \end{array}$		
<p>Comments</p> <p>Because they should be able to do these problems mentally, students are not required to show their work. Don't penalize them, however, if they've used the standard algorithm or some other method to get the answers.</p>							

PROBLEM 6	SCORING: 6 POINTS POSSIBLE						
<p>6 ____ Write the answer to each problem.</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 40 \\ \times 2 \\ \hline 80 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 60 \\ \times 4 \\ \hline 240 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 50 \\ \times 30 \\ \hline 1,500 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 80 \\ \times 50 \\ \hline 4,000 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 21 \\ \times 30 \\ \hline 630 \end{array}$</td> <td style="text-align: center; padding: 5px;">$\begin{array}{r} 32 \\ \times 30 \\ \hline 960 \end{array}$</td> </tr> </table>	$\begin{array}{r} 40 \\ \times 2 \\ \hline 80 \end{array}$	$\begin{array}{r} 60 \\ \times 4 \\ \hline 240 \end{array}$	$\begin{array}{r} 50 \\ \times 30 \\ \hline 1,500 \end{array}$	$\begin{array}{r} 80 \\ \times 50 \\ \hline 4,000 \end{array}$	$\begin{array}{r} 21 \\ \times 30 \\ \hline 630 \end{array}$	$\begin{array}{r} 32 \\ \times 30 \\ \hline 960 \end{array}$	<ul style="list-style-type: none"> 1 point for each correct answer
$\begin{array}{r} 40 \\ \times 2 \\ \hline 80 \end{array}$	$\begin{array}{r} 60 \\ \times 4 \\ \hline 240 \end{array}$	$\begin{array}{r} 50 \\ \times 30 \\ \hline 1,500 \end{array}$	$\begin{array}{r} 80 \\ \times 50 \\ \hline 4,000 \end{array}$	$\begin{array}{r} 21 \\ \times 30 \\ \hline 630 \end{array}$	$\begin{array}{r} 32 \\ \times 30 \\ \hline 960 \end{array}$		
<p>Comments</p> <p>Because they should be able to do these problems mentally, students are not required to show their work. Don't penalize them, however, if they've used the standard algorithm or some other method to get the answers. Of greater concern are those students who are trying to manipulate the numbers without adequate understanding. Such students may give an answer of 150 for 30×50 or 400 for 50×80 because they have latched onto the idea of multiplying the digits in the tens place as if they were ones (i.e., $5 \times 8 = 40$), but aren't sure how many zeros to add. You might ask these students to continue using Base Ten Grid Paper or even base ten pieces to solve such problems so that they can develop a greater understanding of the place value concepts at work.</p>							

Activity 14 Multi-Digit Multiplication Post-Assessment (cont.)

PROBLEM 7	SCORING: 3 POINTS POSSIBLE
<p>7 Choose one of the multiplication problems below and circle it. Pick the one that seems best for you - not too hard and not too easy.</p> <div style="display: flex; justify-content: space-around; font-family: monospace; font-size: 0.8em;"> <div style="text-align: center;">$\begin{array}{r} 112 \\ \times 24 \\ \hline \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 125 \\ \times 17 \\ \hline \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 332 \\ \times 26 \\ \hline \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 254 \\ \times 25 \\ \hline \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 382 \\ \times 37 \\ \hline \end{array}$</div> <div style="text-align: center;">$\begin{array}{r} 569 \\ \times 48 \\ \hline \end{array}$</div> </div> <p>a ____ Use the standard algorithm to find the answer to the problem you circled. Be sure to show all of your work.</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Responses will vary.</p> <p>Sample for 332×26:</p> </div> <div style="font-family: monospace; font-size: 0.8em;"> $\begin{array}{r} 11 \\ 332 \\ \times 26 \\ \hline 1992 \\ + 6640 \\ \hline 8,632 \end{array}$ </div> </div> <p>b ____ Write a story problem to match the multiplication problem you just solved.</p> <p>Responses will vary. Sample: The school cafeteria got 26 packs of napkins. There are 332 napkins in each pack. How many napkins in all?</p>	<ul style="list-style-type: none"> 1 point for using the standard algorithm to get the correct answer 2 points for a multiplication story problem that matches the selected combinations (A story problems that involves repeated addition rather than multiplication may be awarded 1 point.) <p>Answers to the 6 problems:</p> <ul style="list-style-type: none"> $24 \times 112 = 2,688$ $17 \times 125 = 2,125$ $26 \times 332 = 8,632$ $25 \times 254 = 6,350$ $37 \times 382 = 14,134$ $48 \times 569 = 27,312$
<p>Comments</p> <p>Students' story problems will give you some indication of how well they understand the operation of multiplication. Even if they're able to go through the mechanics of the standard algorithm, students who write story problems that involve addition rather than multiplication may still be using additive rather than multiplicative reasoning when they think about multiplication.</p>	

PROBLEM 8	SCORING: 5 POINTS POSSIBLE
<p>8 We can hear someone out mowing the lawn in front of our school. The lawn is 24 feet wide and 49 feet long. How many square feet of grass do they have to mow</p> <p>a ____ Write an expression to match this problem.</p> <div style="text-align: center; font-family: monospace; font-size: 0.8em;"> $\begin{array}{r} 49 \\ \times 24 \\ \hline \end{array}$ </div> <p>b Andy says the answer is going to be about 800. Do you agree with Andy? Why or why not?</p> <p>Responses will vary. Sample: No because 49 is really close to 50. 20×50 would be 1,000 so I think Andy's estimate is too low.</p> <p>c ____ Use any method except repeated addition to solve the problem. Show all of your work.</p> <div style="text-align: center; font-family: monospace; font-size: 0.8em;"> $\begin{array}{r} 20 \times 49 = 980 \\ 4 \times 49 = 196 \\ \hline 1,176 \end{array}$ </div> <p>They have 1,176 square feet of grass to mow.</p>	<ul style="list-style-type: none"> 1 point for the correct expression: 24×49 or 49×24 1 point for the correct response to part b: No or I disagree 1 point for a reasonable explanation of why Andy's estimate is too low (see Comments) 1 point for a method other than repeated addition 1 point for the correct answer, 1,176
<p>Comments</p> <p>If a student agrees with Andy that 800 is a reasonable estimate, and gives an explanation that reflects good number sense, you might consider awarding a point for the explanation. Possible methods for solving the problem include a labeled sketch on base 10 grid paper, a freehand sketch of the area model divided into 4 or 2 parts, finding and adding 4 or 2 partial products, or the standard algorithm. Repeated addition is not acceptable.</p>	

***Note** In order to help students develop fluency with the skills taught during this activity set, you'll want to provide more practice over the coming months. Independent Worksheets 1–9 that follow this activity are provided for this purpose. Additional multi-digit multiplication exercises and problems can be found on The Math Learning Center website: www.mathlearningcenter.org.*

NAME _____

DATE _____

Multi-Digit Multiplication Post-Assessment

 page 1 of 4

1 There are 24 crayons in a box. There are 8 boxes of crayons in a jumbo pack. Mrs. Perez bought 4 jumbo packs of crayons for her class. How many crayons did she get in all?

a ____ Solve the story problem above. Show your work with labeled sketches, numbers, and/or words.

b ____ Mrs. Perez got _____ crayons in all.

2 Choose one of the problems below and circle it.

$\begin{array}{r} 24 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 32 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 42 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 99 \\ \times 5 \\ \hline \end{array}$
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a ____ Use the standard algorithm to solve the problem you circled. Show all your work in the box below.

b ____ Use a different method to solve the problem you circled. Show all your work in the box below.

c ____ Which method was easier and faster for you? Why?

NAME _____

DATE _____

Multi-Digit Multiplication Post-Assessment

 page 2 of 4

3 Choose one of the problems below and circle it.

$$\begin{array}{r} 25 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ \times 23 \\ \hline \end{array}$$

$$\begin{array}{r} 43 \\ \times 23 \\ \hline \end{array}$$

$$\begin{array}{r} 51 \\ \times 32 \\ \hline \end{array}$$

a ____ Use the standard algorithm to solve the problem you circled. Show all your work in the box below.

b ____ Use a different method to solve the problem you circled. Show all your work in the box below.

4 ____ Fill in the bubble to show the best estimate for each problem. Explain your choice.

a

$$\begin{array}{r} 248 \\ \times 4 \\ \hline \end{array}$$

- 800
 900
 1,000
 1,200

Why?

b

$$\begin{array}{r} 25 \\ \times 25 \\ \hline \end{array}$$

- 400
 500
 600
 700

Why?

5 ____ Write the answer to each problem.

$$\begin{array}{r} 45 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 29 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ \times 60 \\ \hline \end{array}$$

$$\begin{array}{r} 1,000 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \times 1,000 \\ \hline \end{array}$$

NAME _____

DATE _____

Multi-Digit Multiplication Post-Assessment page 3 of 4**6** _____ Write the answer to each problem.

$$\begin{array}{r} 40 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 21 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times 30 \\ \hline \end{array}$$

7 Choose one of the multiplication problems below and circle it. Pick the one that seems best for you - not too hard and not too easy.

$$\begin{array}{r} 112 \\ \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} 125 \\ \times 17 \\ \hline \end{array}$$

$$\begin{array}{r} 332 \\ \times 26 \\ \hline \end{array}$$

$$\begin{array}{r} 254 \\ \times 25 \\ \hline \end{array}$$

$$\begin{array}{r} 382 \\ \times 37 \\ \hline \end{array}$$

$$\begin{array}{r} 569 \\ \times 48 \\ \hline \end{array}$$

a _____ Use the standard algorithm to find the answer to the problem you circled. Be sure to show all of your work.**b** _____ Write a story problem to match the multiplication problem you just solved.

NAME _____

DATE _____

Multi-Digit Multiplication Post-Assessment page 4 of 4

8 We can hear someone out mowing the lawn in front of our school. The lawn is 24 feet wide and 49 feet long. How many square feet of grass do they have to mow?

a ____ Write an expression to match this problem.

b Andy says the answer is going to be about 800. Do you agree with Andy? Why or why not?

c ____ Use any method except repeated addition to solve the problem. Show all of your work.

