TOUCHMATH®

THE ALPHABET OF MATHEMATICS

Since 1975

UNIT 6

CLASSIC UPPER GRADES

MIXED OPERATIONS WITH WHOLE NUMBERS

MODULE TITLES

1: Relationships of Operations

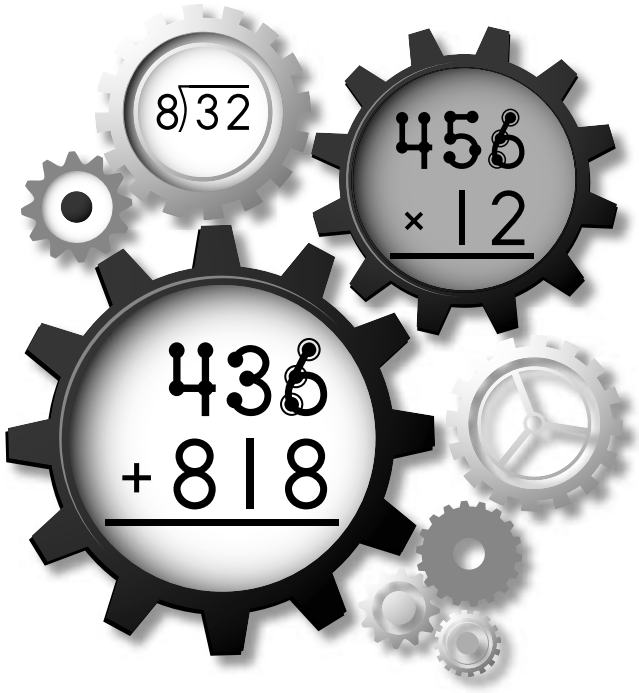
2: Two–Four Digits by One Digit

3: Two–Four Digits by Two Digits

4: Three–Four Digits by Three Digits

5: Four Digits

6: Mixed Practice with Operations



▸ Mixed Operations with Whole Numbers

Unit 6 ◎ **Table of Contents**

Unit 6 ◎ **Introduction**

Organization

The following paragraphs describe the structure of the curriculum. If you would like more information about TouchMath, our teacher training DVD is available at no charge. Request online at www.touchmath.com/freetraining, or call 1-800-888-9191.

Unit Components

The goals for each unit are defined in the overview of skills. These broad proficiencies often establish the framework for concepts of increasing complexity. The goals are broken down into clear, manageable objectives that list the academic expectations of the students and summarize the module-level objectives. Unit vocabulary and detailed Common Core State Standards complete the unit overview. The unit pre- and post-tests immediately follow with directions for administering, recording results, and using the results to determine each student's educational plan.

Module Guides

The table of contents provides the skeleton of the activities within each module guide. The modules include clusters—subsets of the featured skill. A paragraph overview of the module

- identifies the clusters,
- explains the activities,
- lists the Common Core State Standards by their code,
- specifies objectives in the order of presentation,
- labels basic prerequisites,
- lists vocabulary necessary for skill attainment, and
- suggests readily available materials that would be helpful during the lesson

The lessons in the modules begin with a pretest, which gives basic directions for completion. It is recommended that you give little instruction related to the skill before testing. A record sheet is included for tracking student achievement. This record is found on the third page of each module guide. Instructional strategies follow the pretest, providing ideas for the most effective use of the student activity sheets. Four different formatting conventions reveal which type of strategy is being offered:

Box: Information in this shape is background information for the teacher, explaining the skill and illuminating the purpose and/or value of mastery.

: A speech bubble offers what the teacher is to say to the class. Anyone presenting the lesson could use this script.

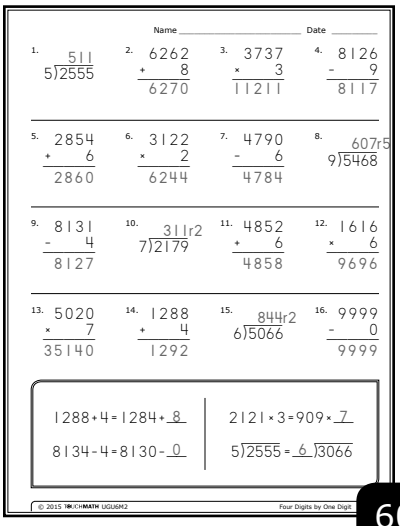
◆: A diamond bullet suggests action for the teacher. It typically includes directions such as "Write ... on the whiteboard." "Monitor students as they complete the row of problems."

Bold: Directions in bold type suggest actions relating to transitions. These include statements such as "Distribute activity sheets ... to the students." "Activity Sheet ... Directions." "Repeat the activity sheet xx process ..."

The answer keys are imbedded in the instructional strategies for a quick reference while planning or presenting the lesson. Modified directions for the activity sheets are included for use after the detailed, step-by-step process to ensure understanding of the concepts.

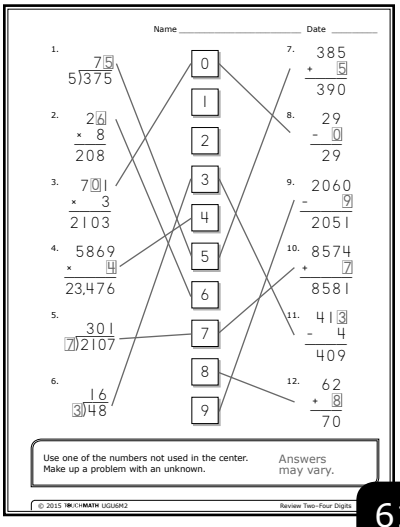
A posttest follows the instruction within the module. Refer to the module guide for directions for administering the posttest. You can record results and compare them to the pretest. The module concludes with suggestions for differentiated instruction and real world applications.

Distribute activity sheet 60 to the students. Assign the activity sheet to be completed independently, or provide guided practice for the problems at the bottom of the page.



60

Distribute activity sheet 61 to the students.



61

Instruction: activity sheet 61

- You have previously completed activities similar to this. You will need your own paper to work some of the problems. We will do the first and last one together. Each of the problems has a missing number.

  Find the quotient for 375 ÷ 5. Work the problem on your own paper.[1] The quotient is 75. Write the 5 in the box in the ones place in the quotient. Match the 5 in the box to the boxed 5 in the center of the page. Draw a line to connect them.

  In the last problem on the sheet, what number is added to 62 to get 70? This problem has a missing addend. Think about the ways you can solve the problem. Raise your hand if your answer is 8. Match the 8 in the box to the boxed 8 in the center of the page.

  Complete the problems on this activity sheet. Not all of the boxed numbers in the center will be used by both columns of missing numbers.

  Follow the directions in the box at the bottom of the sheet.

Independent Practice

- Solve. Find the unknown in the problem. Match the unknown to a boxed number in the center column. Draw a line to connect them. In the box at the bottom, follow the directions.

Differentiated Directions

[1]Students who use short division may be able to complete the division problems on the activity sheet itself.

Name _____ Date _____

8 + 9 ◯ 20	20 - 8 ◯ 9
7 + 4 ◯ 9	9 - 4 ◯ 7
6 + 3 ◯ 8	8 - 3 ◯ 6
5 + 8 ◯ 15	15 - 5 ◯ 8
9 + 2 ◯ 10	10 - 2 ◯ 9

8 + 7 ◯ 8 + 8	16 - 8 ◯ 16 - 7
3 + 6 ◯ 6 + 5	11 - 5 ◯ 11 - 3
9 + 9 ◯ 8 + 9	18 - 8 ◯ 18 - 9
5 + 7 ◯ 5 + 8	15 - 7 ◯ 15 - 8
4 + 6 ◯ 7 + 4	13 - 7 ◯ 13 - 6

Name _____ Date _____

$12 \div x = 4$	1	$7 - x = 4$
$x \div 2 = 2$	2	$8 - x = 6$
$x \div 3 = 3$	3	$7 - x = 6$
$14 \div x = 2$	4	$6 - x = 2$
$15 \div x = 3$	5	$x - 2 = 3$
$16 \div x = 2$	6	$20 - x = 14$
$6 \div x = 6$	7	$x - 4 = 3$
$18 \div x = 9$	8	$x - 0 = 9$
$24 \div x = 4$	9	$9 - x = 1$

Name _____ Date _____

Ginny works part-time every day after school for 3 hours each day. How many hours will she work in _____?

5 days _____

10 days _____

30 days _____

If Ginny worked 5 hours each school day, how many hours would she work in _____?

5 days _____

10 days _____

30 days _____

If Ginny started working 4 hours each day for 5 days of the week, how many hours would she work in _____?

1 week _____

2 weeks _____

4 weeks _____

Ginny worked 30 hours in 5 days, and she worked the same number of hours each day. How many hours did she work each day?

_____ hours

In the summer, Ginny worked 18 hours each weekend. If she worked the same number of hours each day, how many hours did she work on Saturday?

_____ hours

Name _____ Date _____

1. 44×2

2. $2\overline{)44}$

3. $44 + 2$

4. $44 - 2$

---

5. $21 + 3$

6. $24 - 3$

7. $3\overline{)27}$

8. 30×3

---

9. $567 - 4$

10. $234 + 5$

11. 111×1

12. $2\overline{)222}$

---

13. $3\overline{)630}$

14. 432×2

15. $999 - 0$

16. $891 + 6$

Name _____ Date _____

1. $5\overline{)375}$ → $5\overline{)7\square}$

2. $\square 2 \times 8 = 208$

3. $\square 71 \times 3 = 2103$

4. $5869 \times \square = 23{,}476$

5. $\square\overline{)2107}$ → $\square\overline{)301}$

6. $\square\overline{)48}$ → $\square\overline{)16}$

0

1

2

3

4

5

6

7

8

9

7. $385 + \square = 390$

8. $29 - \square = 29$

9. $2060 - \square = 2051$

10. $8574 + \square = 8581$

11. $41\square - 4 = 409$

12. $62 + \square = 70$

Use one of the numbers not used in the center.
Make up a problem with an unknown.

Name _____ Date _____

1. $62 \times 36 = x$

$x =$ ____

2. $17 \times 50 = y$

$y =$ ____

3. $476 + n = 500$

$n =$ ____

4. $820 - 39 = a$

$a =$ ____

5. $66 \times 32 = s$

$s =$ ____

1. $36\overline{)x} = b$

2. $50\overline{)y} = c$

3. $500 - n = d$

4. $a + 39 = e$

5. $32\overline{)s} = f$

1. $90\overline{)900}$ = 11

2. 900×90 = 10

3. $900 - 90$ = 81,000

4. $900 + 90$ = 810

5. $90\overline{)990}$ = 990

Name _____ Date _____

1. $56 + 29$

(A) 75
(B) 73
(C) 85
(D) None

2. $760 - 77$

(A) 683
(B) 697
(C) 713
(D) None

3. $25 - 14$

(A) 8
(B) 9
(C) 10
(D) None

4. $999 + 99$

(A) 1999
(B) 1098
(C) 1998
(D) None

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5. 18×81

(A) 99
(B) 1408
(C) 1458
(D) None

6. $604 + 53$

(A) 30,212
(B) 32,012
(C) 32,112
(D) None

7. $18\overline{)81}$

(A) 4r11
(B) 4r9
(C) 5
(D) None

8. $53\overline{)604}$

(A) 12r11
(B) 11r12
(C) 11r21
(D) None

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9. 716×82

(A) 58,712
(B) 57,812
(C) 57,182
(D) None

10. $21\overline{)231}$

(A) 11
(B) 10r20
(C) 10r19
(D) None

11. 28×28

(A) 874
(B) 478
(C) 748
(D) None

12. $28\overline{)784}$

(A) 26
(B) 28
(C) 23
(D) None

Name _____ Date _____

11. 5326×404

13. (A) < (B) > (C) =

12. 4063×527

14. $313\overline{)3131}$

16. (A) < (B) > (C) =

15. $222\overline{)2450}$

17. $5626 + 2384$

19. (A) < (B) > (C) =

18. $9702 - 1692$

20. $241x = 7953$

$x =$ (A) 35 (B) 53 (C) 33 (C) 55

21. $189\overline{)5103}$, x

$x =$ (A) 27 (B) 36 (C) 72 (C) 63