Grade 5 Unit 4 Module 1
Practice Pages for Math at Home

NAME | DATE

Fraction & Decimal Review

1 Find the sum or difference. Show your work.

a $\frac{1}{3} + \frac{3}{8} =$

b $\frac{6}{7} + \frac{2}{5} =$

c $\frac{6}{9} - \frac{1}{4} =$

d $\frac{5}{12} - \frac{1}{8} =$

2 Isabel and Jared each made a pan of brownies. Their pans of brownies were exactly the same size. After the first day, there was $\frac{1}{4}$ of one pan and $\frac{2}{12}$ of the other pan left. What fraction of the brownies were eaten? Show your work.

3 Which of the following describes the value of the number 6.21? (Mark all that are true.)
- ○ six hundred twenty-one hundredths
- ○ six and twenty-one hundredths
- ○ sixty-two tenths and one hundredth
- ○ six hundred twenty-one tenths

4 Round 156.789 to the nearest:

one   tenth   hundredth

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Product Problems

1 Find the product.

a $(18 \times 4) \times 5 =$

b $22 \times (6 \times 10) =$

c $15 \times (4 \times 20) =$

2 Find the quotient.

a $1{,}300 \div 100 =$

b $1{,}300 \div 10 =$

c $1{,}300 \div 5 =$

3 Solve the problems in this string. Use the answers from the first few combinations to help solve the rest.

a $48 \times 10 =$
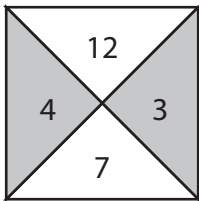
b $48 \times 5 =$

c $48 \times 15 =$

d $48 \times 100 =$

e $48 \times 50 =$

f $2{,}448 \div 48 =$

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▨ Multiplication Strategy

Here is a completed box challenge puzzle. If you look at it closely, you'll see that the number at the top is the product of the two numbers in the middle, and the number at the bottom is the sum of the two numbers in the middle.

$$4 \times 3 = 12$$
$$4 + 3 = 7$$

1 Fill in the blanks to complete each of the box challenge puzzles below. Remember that the number at the top is the *product* of the two numbers in the middle, and the number at the bottom is the *sum* of the two numbers in the middle.
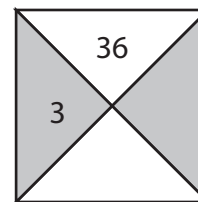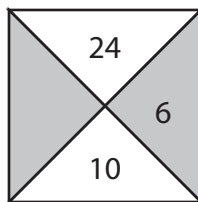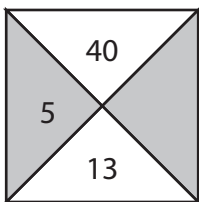
2 The craft store sells boxes of modeling clay. Each box holds 14 sticks of clay. Complete the ratio table to find out how many sticks there are in different numbers of boxes.

Boxes	1	2	3	6	10	9
Sticks of Clay	14					

3 You can also buy individual sticks of modeling clay for $0.35 each. Find out how much it would cost to buy different numbers of individual sticks of clay.

Clay Sticks	1	2	4	8	20	19
Cost	$0.35					

4 Miranda was asked to solve the problem 1,300 ÷ 26. How can she use multiplication to solve this problem? Find the answer and describe the strategy you used.
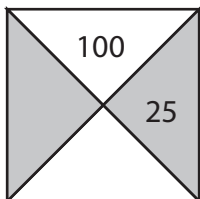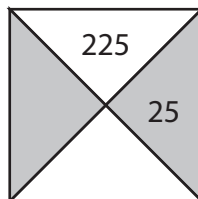
Box Puzzle Challenges

Complete the box puzzle challenges. Remember that the top box shows the *product* of the two middle numbers, and the bottom box shows *the* sum of the two middle numbers.
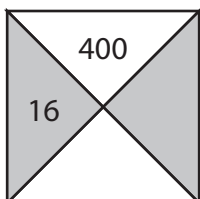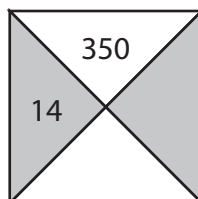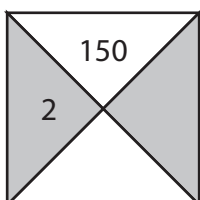
1
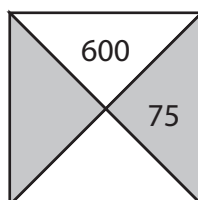
100
25

2

225
25

3

400
16

4

350
14

5

150
2

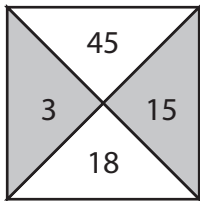**6**

600
75

Challenge

7

375
80

8
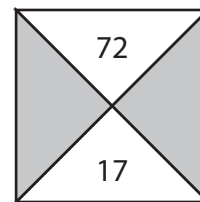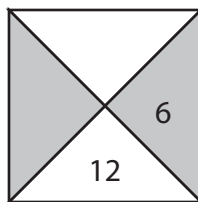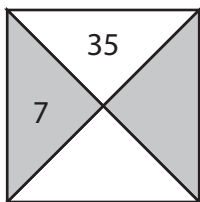
375
40

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🏠 Number Review page 1 of 2

Here is a completed box challenge puzzle. If you look at it closely, you'll see that the number at the top is the product of the two numbers on the left and right, and the number at the bottom is the sum of the two numbers on the left and right.

$3 \times 15 = 45$

$3 + 15 = 18$

(box: 45 top, 3 left, 15 right, 18 bottom)

1 Fill in the blanks to complete each of the box challenge puzzles below. Remember that the number at the top is the *product* of the two numbers on the sides, and the number at the bottom is the *sum* of the two numbers on the sides.

(box: 35 top, 7 left)   (box: 6 right, 12 bottom)   (box: 72 top, 17 bottom)

2 Evaluate each expression.

a $(14 \times 3) \times 10$ **b** $4 \times (9 \times 20)$

c $(600 \div 20) \times 5$ **d** $99 \times (99 + 1)$

3 Julia said that she solved the problem $360 \div 12$ by dividing 36 by 12 and then multiplying her answer by 10. Write an expression to show her thinking.

4 Lucas said he solved $360 \div 12$ by multiplying 12 by 3 and then multiplying the product by 10. Write an expression to show his thinking.

5 Who got the correct quotient (answer), Julia or Lucas?

6 Billy said that he thinks 30×176 is three times larger than 10×176. Do you agree or disagree? Explain your thinking.

(continued on next page)

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7 Write the following decimals in standard form.

a 1,000 + 6 + 0.1 + 0.003

b Fourteen and three hundred ninety-seven thousandths

8 Write the following decimals in word form.

a 10 + 0.06 + 0.008

b 40.545

9 Write the following decimals in expanded notation.

a Seven hundred twenty-two and sixteen-thousandths

b 938.120

10 Compare the decimals. Fill in each blank with <, >, or =.
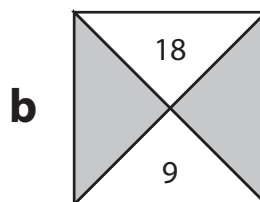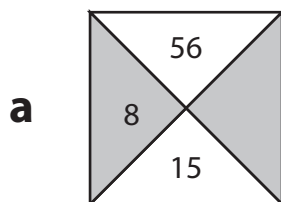
a 160.30 ☐ 160.03   **b** 7.098 ☐ 7.908

c 3.071 ☐ 3.701   **d** 90.0 ☐ 0.90

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🏠 Thinking About Strategy page 1 of 2

1 Complete the box challenges below.

a

```
      56
  8  ╳
      15
```

b

```
      18
     ╳
      9
```

2 The craft store sells large boxes of modeling clay that hold 18 sticks each. Complete the ratio table to find out how many sticks there are in different numbers of boxes.

Large Boxes	1	2	3	5	10	50	55
Sticks of Clay	18						

3 You can also buy small boxes of modeling clay at the craft store for $3.50 each. Find out how much it would cost to buy different numbers of small boxes of clay.

Small Boxes	1	2	10	20	19	40	39
Cost	$3.50						

4 Solve the problems in the string below. Use the answers from the first few combinations to help solve the rest.

a 36×10

b 36×5

c 36×15

d 36×100

e 36×50

f $1,872 \div 36$

(continued on next page)

Thinking About Strategy page 2 of 2

5 Solve the problems in this string.

a 36 ÷ 18

b 72 ÷ 18

c 108 ÷ 18

d 180 ÷ 18

e 1800 ÷ 18

f 18 × 99

6 **CHALLENGE** Noah loves the Half-Tens facts and often uses them to solve multiplication problems. Make up a 2-digit by 3-digit multiplication problem for which using Half-Ten facts is efficient. Then, solve the problem using that strategy.

Answer Keys

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Fraction & Decimal Review

1 Find the sum or difference. Show your work.

a $\frac{1}{3} + \frac{3}{8} =$ **¹⁷⁄₂₄**

b $\frac{6}{7} + \frac{2}{5} =$ **⁴⁴⁄₃₅ or 1 ⁹⁄₃₅**

c $\frac{6}{9} - \frac{1}{4} =$ **¹⁵⁄₃₆ or ⁵⁄₁₂**

d $\frac{5}{12} - \frac{1}{8} =$ **⁷⁄₂₄**

2 Isabel and Jared each made a pan of brownies. Their pans of brownies were exactly the same size. After the first day, there was $\frac{1}{4}$ of one pan and $\frac{2}{12}$ of the other pan left. What fraction of the brownies were eaten? Show your work.

1 ⁷⁄₁₂ of the brownies were eaten; work will vary.

3 Which of the following describes the value of the number 6.21? (Mark all that are true.)
- ● six hundred twenty-one hundredths
- ● six and twenty-one hundredths
- ● sixty-two tenths and one hundredth
- ○ six hundred twenty-one tenths

4 Round 156.789 to the nearest:

one **157**　　　　　　　tenth **156.8**　　　　　　　hundredth **156.79**

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Product Problems

1 Find the product.

    a $(18 \times 4) \times 5 =$ **360**

    b $22 \times (6 \times 10) =$ **1,320**

    c $15 \times (4 \times 20) =$ **1,200**

2 Find the quotient.

    a $1,300 \div 100 =$ **13**

    b $1,300 \div 10 =$ **130**

    c $1,300 \div 5 =$ **260**

3 Solve the problems in this string. Use the answers from the first few combinations to help solve the rest.

    a $48 \times 10 =$ **480**

    b $48 \times 5 =$ **240**

    c $48 \times 15 =$ **720**

    d $48 \times 100 =$ **4,800**

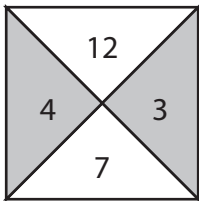   **e** $48 \times 50 =$ **2,400**

    f $2,448 \div 48 =$ **51**

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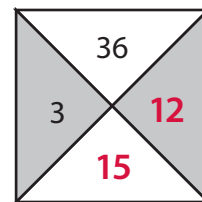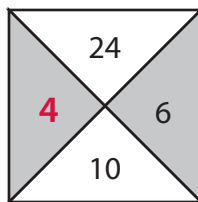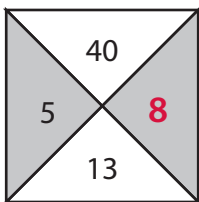
🏠 Multiplication Strategy

Here is a completed box challenge puzzle. If you look at it closely, you'll see that the number at the top is the product of the two numbers in the middle, and the number at the bottom is the sum of the two numbers in the middle.

(box: 12 top, 4 left, 3 right, 7 bottom)

$4 \times 3 = 12$
$4 + 3 = 7$

1 Fill in the blanks to complete each of the box challenge puzzles below. Remember that the number at the top is the *product* of the two numbers in the middle, and the number at the bottom is the *sum* of the two numbers in the middle.

(box: 40 top, 5 left, **8** right, 13 bottom)

(box: 24 top, **4** left, 6 right, 10 bottom)

(box: 36 top, 3 left, **12** right, **15** bottom)

2 The craft store sells boxes of modeling clay. Each box holds 14 sticks of clay. Complete the ratio table to find out how many sticks there are in different numbers of boxes.

Boxes	1	2	3	6	10	9
Sticks of Clay	14	**28**	**42**	**84**	**140**	**126**

3 You can also buy individual sticks of modeling clay for $0.35 each. Find out how much it would cost to buy different numbers of individual sticks of clay.

Clay Sticks	1	2	4	8	20	19
Cost	$0.35	**$0.70**	**$1.40**	**$2.80**	**$7.00**	**$6.65**

4 Miranda was asked to solve the problem $1,300 \div 26$. How can she use multiplication to solve this problem? Find the answer and describe the strategy you used.

50; strategies will vary. Example: I can use a ratio table to find that $26 \times 50 = 1,300$. That means $1,300 \div 26 = 50$.

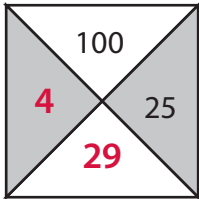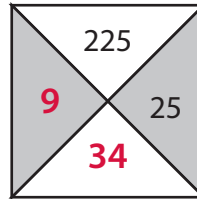| 26	260	130	1,300
1	10	5	50

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📦 Box Puzzle Challenges

Complete the box puzzle challenges. Remember that the top box shows the *product* of the two middle numbers, and the bottom box shows *the* sum of the two middle numbers.
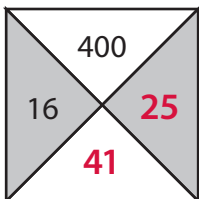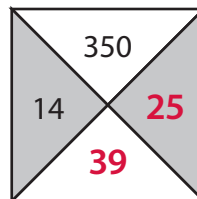
1

```
    100
4  ×  25
   29
```

2

```
    225
9  ×  25
   34
```

3

```
    400
16  ×  25
   41
```

4

```
    350
14  ×  25
   39
```

5

```
    150
2  ×  75
   77
```

6

```
    600
8  ×  75
   83
```

Challenge

7

```
    375
75  ×  5
   80
```

8

```
    375
15  ×  25
   40
```

Number Review page 1 of 2
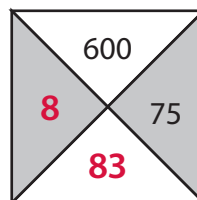
Here is a completed box challenge puzzle. If you look at it closely, you'll see that the number at the top is the product of the two numbers on the left and right, and the number at the bottom is the sum of the two numbers on the left and right.

$3 \times 15 = 45$
$3 + 15 = 18$

(box: top 45, left 3, right 15, bottom 18)

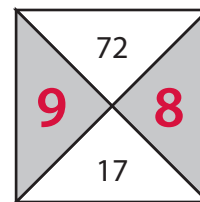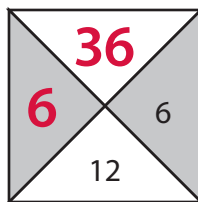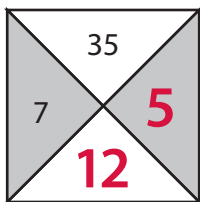**1** Fill in the blanks to complete each of the box challenge puzzles below. Remember that the number at the top is the *product* of the two numbers on the sides, and the number at the bottom is the *sum* of the two numbers on the sides.

(box: top 35, left 7, right **5**, bottom **12**)

(box: top **36**, left **6**, right 6, bottom 12)

(box: top 72, left **9**, right **8**, bottom 17)

2 Evaluate each expression.

a $(14 \times 3) \times 10$ **= 420**

b $4 \times (9 \times 20)$ **= 720**

c $(600 \div 20) \times 5$ **= 150**

d $99 \times (99 + 1)$ **= 9,900**

3 Julia said that she solved the problem $360 \div 12$ by dividing 36 by 12 and then multiplying her answer by 10. Write an expression to show her thinking.

36 ÷ 12 × 10 **Expressions may vary slightly.**

4 Lucas said he solved $360 \div 12$ by multiplying 12 by 3 and then multiplying the product by 10. Write an expression to show his thinking.

12 × 3 × 10 **Expressions may vary slightly.**

5 Who got the correct quotient (answer), Julia or Lucas?

Julia

6 Billy said that he thinks 30×176 is three times larger than 10×176. Do you agree or disagree? Explain your thinking.

Agree; Billy is correct. Explanations will vary.

Number Review page 2 of 2

7 Write the following decimals in standard form.

a 1,000 + 6 + 0.1 + 0.003

1,006.103

b Fourteen and three hundred ninety-seven thousandths

14.397

8 Write the following decimals in word form.

a 10 + 0.06 + 0.008

Ten and sixty-eight thousandths

b 40.545

Forty and five hundred forty-five thousandths

9 Write the following decimals in expanded notation.

a Seven hundred twenty-two and sixteen-thousandths

700 + 20 + 2 + 0.01 + 0.006

b 938.120

900 + 30 + 8 + 0.1 + 0.02 (+ 0.000)

10 Compare the decimals. Fill in each blank with <, >, or =.

a 160.30 **>** 160.03   **b** 7.098 **<** 7.908
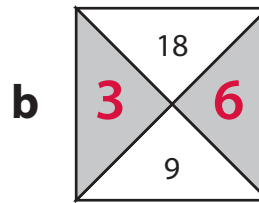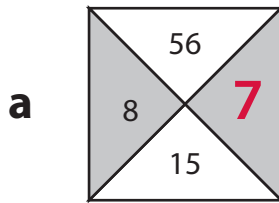
c 3.071 **<** 3.701   **d** 90.0 **>** 0.90

NAME _____ | **DATE** _____

🏠 Thinking About Strategy page 1 of 2

1 Complete the box challenges below.

a

| 56 |
| 8 **7** |
| 15 |

b

| 18 |
| **3** **6** |
| 9 |

2 The craft store sells large boxes of modeling clay that hold 18 sticks each. Complete the ratio table to find out how many sticks there are in different numbers of boxes.

Large Boxes	1	2	3	5	10	50	55
Sticks of Clay	18	**36**	**54**	**90**	**180**	**900**	**990**

3 You can also buy small boxes of modeling clay at the craft store for $3.50 each. Find out how much it would cost to buy different numbers of small boxes of clay.

Small Boxes	1	2	10	20	19	40	39
Cost	$3.50	**$7**	**$35**	**$70**	**$66.50**	**$140**	**$136.50**

4 Solve the problems in the string below. Use the answers from the first few combinations to help solve the rest.

a 36×10 **= 360**

b 36×5 **= 180**

c 36×15 **= 540**

d 36×100 **= 3,600**

e 36×50 **= 1,800**

f $1,872 \div 36$ **= 52**

(continued on next page)

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5 Solve the problems in this string.

a $36 \div 18$ **= 2**

b $72 \div 18$ **= 4**

c $108 \div 18$ **= 6**

d $180 \div 18$ **= 10**

e $1800 \div 18$ **= 100**

f 18×99 **= 1,782**

6 **CHALLENGE** Noah loves the Half-Tens facts and often uses them to solve multiplication problems. Make up a 2-digit by 3-digit multiplication problem for which using Half-Ten facts is efficient. Then, solve the problem using that strategy.

Work will vary. Good options include problems multiplying a three-digit number times 50 or multiplying 500 times a two-digit number. Examples:

$$862 \times 50 = 862 \times 100 \div 2$$
$$= 86{,}200 \div 2$$
$$= 43{,}100$$

$$500 \times 72 = 1{,}000 \times 72 \div 2$$
$$= 72{,}000 \div 2$$
$$= 36{,}000$$