

EXERCISE 1: FACT REVIEW

a. Open your workbook to Lesson 32 and find part 1. ✓

(Teacher reference:)

a. 7	b. 6	c. 7	d. 8	e. 7	f. 4	g. 9	h. 7	i. 5	j. 7
+ 4	+ 7	+ 5	+ 7	+ 9	+ 7	+ 7	+ 8	+7	+6
k. 8	I. 5	m. 8	n. 8	o. 4	p. 8	q. 3	r. 8	s. 8	t. 6
+ 3	+8	+ 6	+ 9	+ 8	+ 5	+ 8	+7	+ 4	+ 8
u. 7	v. 6	w. 6	x. 4	y. 6	z. 8	A. 5	в. 9	c. 6	D. 6
+ 6	+ 3	+ 7	+6	+ 5	+6	+ 6	+ 6	+ 8	+ 4

These are hard addition facts.

b. Write answers to all the problems. Raise your hand when you're finished.

(Observe students and give feedback.) (If some students have not finished after 2 minutes, say:) Stop.

- c. Check your work.Say the fact for each problem.
- Problem A. (Signal.) 7 + 4 = 11.
- B. (Signal.) 6 + 7 = 13.

(Repeat for remaining problems:

- c. 7 + 5 = 12
- q. 3 + 8 = 11
- d. 8 + 7 = 15
- r. 8 + 7 = 15
- e. 7 + 9 = 16
- s. 8 + 4 = 12
- f. 4 + 7 = 11
- t. 6 + 8 = 14
- q. 9 + 7 = 16
- u. 7 + 6 = 13
- h. 7 + 8 = 15
- v. 6 + 3 = 9
- i. 5 + 7 = 12
- w. 6 + 7 = 13
- j. 7 + 6 = 13
- x. 4 + 6 = 10
- **k.** 8 + 3 = 11
- y. 6 + 5 = 11
- I. 5 + 8 = 13
- z. 8 + 6 = 14
- m. 8 + 6 = 14
- **A.** 5 + 6 = 11
- n. 8 + 9 = 17
- **B.** 9 + 6 = 15
- o. 4 + 8 = 12
- **c**. 6 + 8 = 14
- p. 8 + 5 = 13
- **D.** 6 + 4 = 10.)

EXERCISE 2: READING FRACTIONS

- REMEDY
- a. Here are rules about fractions.
- If there are 6 parts in each unit, the parts are called sixths. What are the parts called? (Signal.) Sixths.

- If there are 9 parts in each unit, the parts are called ninths. What are the parts called? (Signal.) Ninths.
- If there are 3 parts in each unit, the parts are called thirds. What are the parts called? (Signal.) Thirds.
- b. What are the parts called if there are 4 parts in each unit? (Signal.) Fourths.
- What are the parts called if there are 7 parts in each unit? (Signal.) Sevenths.
- What are the parts called if there are 14 parts in each unit? (Signal.) Fourteenths.
- What are the parts called if there are 5 parts in each unit? (Signal.) Fifths.
- What are the parts called if there are 3 parts in each unit? (Signal.) *Thirds*.

(Repeat until firm.)

(Display:)

[32:2A]

$$\frac{2}{9}$$
 $\frac{2}{8}$ $\frac{3}{4}$ $\frac{5}{7}$ $\frac{2}{10}$

- -c. (Point to $\frac{2}{9}$.) How many parts in each unit? (Signal.) 9.
- So what are the parts called? (Signal.) Ninths.
- The fraction is 2 ninths. What's this fraction? (Signal.) 2 ninths.
- d. (Point to $\frac{2}{8}$.) How many parts in each unit? (Signal.) 8.
- So what are the parts called? (Signal.) Eighths.
- The fraction is 2 eighths. What's this fraction? (Signal.) 2 eighths.
- e. (Point to $\frac{3}{4}$.) How many parts in each unit? (Signal.) 4.
- So what are the parts called? (Signal.) Fourths.
- What's this fraction? (Signal.) 3 fourths.
- f. (Point to $\frac{5}{7}$.) How many parts in each unit? (Signal.) 7.
- So what are the parts called? (Signal.) Sevenths.
- What's this fraction? (Signal.) 5 sevenths.
- g. (Point to $\frac{2}{10}$.) How many parts in each unit? (Signal.) 10.
- So what are the parts called? (Signal.) Tenths.
- The fraction is 2 tenths. What's this fraction? (Signal.) 2 tenths. (Repeat until firm.)

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- h. Read each fraction.
- (Point to $\frac{2}{9}$.) What fraction? (Signal.) 2 ninths.
 - (Point to $\frac{2}{8}$.) What fraction? (Signal.) 2 eighths.
 - (Point to $\frac{3}{4}$.) What fraction? (Signal.) 3 fourths.
 - (Point to $\frac{5}{7}$.) What fraction? (Signal.) 5 sevenths.
 - (Point to $\frac{2}{10}$.) What fraction? (Signal.) 2 tenths. (Repeat until firm.)

WORKBOOK PRACTICE •

a. Find part 2 in your workbook. (Teacher reference:)



You're going to write fractions for the pictures.

- b. Touch picture A.
- First you'll write the number that tells how many parts are in each unit. Is that the top number or the bottom number? (Signal.) The bottom number.
- Write the bottom number of the fraction. Then stop. 🗸
- What's the bottom number of the fraction? (Signal.) 4.
- c. Write the top number of the fraction.
- What's the top number of the fraction? (Signal.) 5.

Yes. 5 parts are shaded.

- d. Picture B: Write the part of the fraction that tells how many parts are in each unit. Stop when you've done that much.
- What number did you write? (Signal.) 3.
- Is that the top number or the bottom number of the fraction? (Signal.) The bottom number.
- e. Write the top number of the fraction.
- What number did you write? (Signal.) 1. Yes, one part is shaded.
- f. Picture C: Write the part of the fraction that tells how many parts are in each unit. Stop when you've done that much.
- What number did you write? (Signal.) 6.
- Is that the top number or the bottom number of the fraction? (Signal.) The bottom number.
- g. Write the top number of the fraction.
- What number did you write? (Signal.) 3. Yes, 3 parts are shaded.

EXERCISE 3: MULTIPLICATION FACTS 1S AND 10S

REMEDY

a. (Display:)

[32:3A]

1 × 5	10 × 3
1 × 8	10 × 8
1 × 1	10 × 1
1 × 6	10 × 5
1 × 3	10 × 2
1 × 9	10 × 6

(Point to 1×5 .) All the times problems in this column begin with 1.

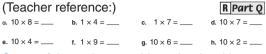
(Point to 10×3 .) All the times problems in this column begin with 10.

- b. Remember, tens are easy if you know what 1 times the number equals. If 1 times 8 equals 8, 10 times 8 equals 80.
- Your turn: 1 times 4 equals 4. What does 10 times 4 equal? (Signal.) 40.
- If 1 times 9 equals 9, what does 10 times 9 equal? (Signal.) 90.
- c. (Point to 1×5 .) My turn: What's 1 times 5? 5. 1 times 5 equals 5. Say the fact. (Signal.) $1 \times 5 = 5$.
- d. (Point to 1×8 .) Your turn: What's 1 times 8? (Signal.) 8.
- Say the fact. (Signal.) $1 \times 8 = 8$.
- e. (Point to 1×1 .) Say the fact for 1 times 1. (Signal.) $1 \times 1 = 1$.
- (Point to 1×6 .) Say the fact for 1 times 6. (Signal.) $1 \times 6 = 6$.
- (Point to 1×3 .) Say the fact for 1 times 3. (Signal.) $1 \times 3 = 3$.
- (Point to 1×9 .) Say the fact for 1 times 9. (Signal.) $1 \times 9 = 9$. (Repeat until firm.)
- f. (Point to 10×3 .) All these times problems begin with 10.
- What's 10 times 3? (Signal.) 30.
- Say the fact. (Signal.) $10 \times 3 = 30$.
- g. (Point to 10×8 .) Say the fact for 10 times 8. (Signal.) $10 \times 8 = 80$.
- (Point to 10×1 .) Say the fact for 10 times 1. (Signal.) $10 \times 1 = 10$.
- (Point to 10×5 .) Say the fact for 10 times 5. (Signal.) $10 \times 5 = 50$.
- (Point to 10×2 .) Say the fact for 10 times 2. (Signal.) $10 \times 2 = 20$.
- (Point to 10×6 .) Say the fact for 10 times 6. (Signal.) $10 \times 6 = 60$. (Repeat until firm.)

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WORKBOOK PRACTICE =

a. Find part 3 in your workbook.

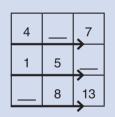


Some of these times problems begin with 1 and some begin with 10.

- Write answers to all the problems.
 (Observe students and give feedback.)
- b. Check your work.
- Read fact A. (Signal.) $10 \times 8 = 80$.
- Read fact B. (Signal.) $1 \times 4 = 4$.
- Fact C. (Signal.) $1 \times 7 = 7$.
- Fact D. (Signal.) $10 \times 7 = 70$.
- Fact E. (Signal.) $10 \times 4 = 40$.
- Fact F. (Signal.) $1 \times 9 = 9$.
- Fact G. (Signal.) $10 \times 6 = 60$.
- Fact H. (Signal.) $10 \times 2 = 20$.

EXERCISE 4: TABLES *FIND MISSING NUMBERS*

a. (Display:)



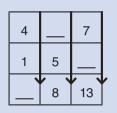
[32:4A]

Here's a table with missing numbers. The arrow shows that the rows in the table work just like number families. You can find the missing numbers by using what you know about number families.

- b. (Point to top row.) Look at the top row. The numbers in this family are 4 and 7. A small number is missing.
- Start with 7 and say the problem for figuring out the small number. (Signal.) 7 4.
- c. (Point to middle row.) Look at the numbers in the middle row.
- What's missing in this family—the big number or a small number? (Signal.) The big number.
- Say the problem for figuring out the missing number. (Signal.) 1 + 5.

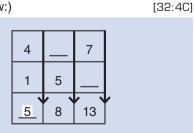
- d. (Point to **bottom row.**) Look at the numbers in the bottom row.
- What's missing in this family—the big number or a small number? (Signal.) A small number.
- Say the problem for figuring out the missing number. (Signal.) 13 – 8.
 (Repeat until firm.)

e. (Display:) [32:4B]



The numbers in the columns also make up number families. The arrows go down. The big number is at the bottom.

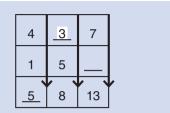
- f. (Point to first column.) My turn: What's missing in the first column? The big number. I'll say the problem for figuring out that number: 4 plus 1.
 - Your turn to say the problem for the first column. (Signal.) 4 + 1.
- g. (Point to **second column.**) What's missing in the second column—the big number or a small number? (Signal.) A small number.
- Say the problem for figuring out the missing number. (Signal.) 8 5.
- h. (Point to **last column.**) What's missing in the last column—the big number or a small number? (Signal.) A small number.
- Say the problem for figuring out the missing number. (Signal.) 13 – 7.
 (Repeat until firm.)
- i. This time you'll say the problem for each column and tell me the answer.
- j. (Point to **first column.**) The big number is missing in the first column. Say the problem for the first column. (Signal.) 4 + 1.
- What's the answer? (Signal.) 5.
 (Add to show:)



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- k. (Point to **second column.**) A small number is missing in the second column. Say the problem for the second column. (Signal.) 8-5.
- What's the answer? (Signal.) 3. (Add to show:) [32:4D]



[32:4E]

- I. (Point to last column.) A small number is missing in the last column. Say the problem for the last column. (Signal.) 13 - 7.
- What's the answer? (Signal.) 6. (Add to show:)



Here's the table with all the missing numbers.

EXERCISE 5: MULTIPLICATION FACTS

a. Find part 4 in your workbook. (Teacher reference:)

- Touch family A. <
- What are the small numbers? (Signal.) 8 and 4.
- What's the big number? (Signal.) 32.
- b. You're going to write two facts for each family. Remember, the first fact will begin with the first small number. The second fact will begin with the other small number.
- c. Write both facts for family A. (Observe students and give feedback.)

- d. Check your work.
- Read the first fact. (Signal.) $8 \times 4 = 32$.
- Read the second fact. (Signal.) $4 \times 8 = 32$. (Display:) [32:5A]

$$8 \times 4 = 32$$

 $4 \times 8 = 32$

Here's what you should have.

- e. Write both facts for family B. (Observe students and give feedback.)
- f. Check your work.
- Read the first fact. (Signal.) $10 \times 7 = 70$.
- Read the second fact. (Signal.) $7 \times 10 = 70$. (Display:) [32:5B]

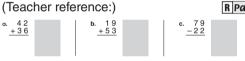
Here's what you should have.

EXERCISE 6: ESTIMATION 2-DIGIT COLUMN PROBLEMS

REMEDY

a. Find part 5 in your workbook.

R Part I



You're going to write an estimation problem next to each regular problem.

- b. Read problem A. (Signal.) 42 + 36.
- Touch 42. ✓

What tens number is closest to 42? (Signal.) 40.

Touch 36. ✓

What tens number is closest to 36? (Signal.) 40.

 Write the estimation problem and the answer next to problem A.

(Observe students and give feedback.)

- Everybody, read the estimation problem and the answer. (Signal.) 40 + 40 = 80.
- c. Now work 42 plus 36 and see how close the answer is to 80.

(Observe students and give feedback.)

- What's the answer to the regular problem? (Signal.) 78.
- Is that pretty close to 80? (Signal.) Yes.

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d. Write estimation problems for problems B and
 C. Then work the estimation problems and the regular problems.

(Observe students and give feedback.)

- e. Check your work.
- Read the estimation problem and the answer for B. (Signal.) 20 + 50 = 70.
 Read the regular problem and the answer.
 (Signal.) 19 + 53 = 72.
- Read the estimation problem and the answer for C. (Signal.) 80 20 = 60.
 Read the regular problem and the answer. (Signal.) 79 22 = 57.

EXERCISE 7: COMPARISON WORD PROBLEMS REMEDY

a. (Display:)

[32:7A]

a. Jan had 40 more marbles than Sam had.
 Sam had 17 marbles.
 How many marbles did Jan have?



You're going to work problems that have sentences that compare two things or two people.

- I'll read this problem: Jan had 40 more marbles than Sam had. Sam had 17 marbles. The question asks: How many marbles did Jan have?
- We'll make a number family for the sentence that compares two people. I'll read that sentence:
 Jan had 40 more marbles than Sam had.
- Say that sentence. (Signal.) Jan had 40 more marbles than Sam had.
- c. The sentence tells about Jan and Sam.
- Who had more marbles—Jan or Sam? (Signal.) Jan.

So Jan is the big number.

(Add to show:)

[32:7B]

a. Jan had 40 more marbles than Sam had. Sam had 17 marbles. How many marbles did Jan have?



Jan had 40 more marbles than Sam had. The sentence also gives a number.

What's that number? (Signal.) 40.
 (Add to show:)

[32:7C]

Jan had 40 more marbles than Sam had.
 Sam had 17 marbles.
 How many marbles did Jan have?

Here's the family with two letters and a number. d. (Display:) [32:7D]

b. Tim was 11 inches shorter than Joe.



Here's a sentence that compares two people. I'll read the sentence: Tim was 11 inches shorter than Joe.

- Say the sentence. (Signal.) Tim was 11 inches shorter than Joe.
- e. We're going to make a number family.
- Who was taller—Tim or Joe? (Signal.) Joe.
- So who is the big number? (Signal) *Joe.* (Add to show:) [32:7E]
 - b. Tim was 11 inches shorter than Joe.



Listen: Tim was 11 inches shorter than Joe.

- What's the other small number? (Signal.) 11.
 (Add to show:) [32:7F]
 - b. Tim was 11 inches shorter than Joe.



Here's the family with two letters and a number.

TEXTBOOK PRACTICE =

- a. Open your textbook to Lesson 32.
- Write P1 on the first line of your paper. ✓

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b. Find part 1 in your textbook. (Teacher reference:)

- c. Fran had 16 more books than Ted had. Ted had 26 books. How many books did Fran have?
- b. The green house was 27 years older than the blue house The green house was 50 years old. How old was the blue house?
- c. Rita weighed 18 more pounds than Alice. Rita weighed 62 pounds. How many pounds did Alice weigh?



- You're going to make a number family for each problem. Make the number family arrows on your lined paper for problems A, B, and C. (Observe students and give feedback.)
- c. Touch problem A. I'll read the problem: Fran had 16 more books than Ted had. Ted had 26 books. How many books did Fran have?
- Find the sentence that compares two people.
- Read the sentence. (Signal.) Fran had 16 more books than Ted had.
- Write a number family for that sentence with two letters and a number. (Observe students and give feedback.)

Here's what you should have.

The first small number is 16. Fran is the big number. Ted is a small number.

- The problem gives a number for Ted. Write that number in the family.
- d. Check your work.

(Add to show:)

[32:7H]



Here's what you should have.

- e. Touch problem B. 🗸
 - I'll read it: The green house was 27 years older than the blue house. The green house was 50 years old. How old was the blue house?
- Find the sentence that compares two houses and make a number family that has two letters and a number for that sentence. Then write the other number the problem gives.

(Observe students and give feedback.) (Display:) [32:7**I**]

b.
$$\underbrace{27}$$
 b $\underbrace{50}$

Here's what you should have.

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- f. Touch problem C. < I'll read it: Rita weighed 18 more pounds than Alice. Rita weighed 62 pounds. How many pounds did Alice weigh?
- Find the sentence that compares two people. Then make a number family that has two letters and two numbers.

(Observe students and give feedback.) (Display:) [32:7J]

Here's what you should have.

g. Work each problem. Write the unit name in the answer.

(Observe students and give feedback.)

h. Check your work.

(Display:)

[32:7K]

a.
$$\frac{16}{\cancel{1}}$$
 F $\frac{1}{1}$ 6 $+ 26$ 4 2 books

b.
$$\xrightarrow{27}$$
 b $\xrightarrow{50}$ $\xrightarrow{50}$ $\xrightarrow{5}$ $\xrightarrow{10}$ $\xrightarrow{-27}$ $\xrightarrow{23}$ years

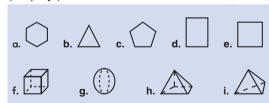
c.
$$18$$
 A 62 $6^{1/2}$ -18 4 4 pounds

Here's what you should have.

EXERCISE 8: GEOMETRY 2- AND 3-DIMENSIONAL SHAPES

a. (Display:)

[32:8A]



- b. Tell me the name of each shape in the top row.
- (Point to A.) What shape? (Signal.) Hexagon.
- (Point to B.) What shape? (Signal.) Triangle.
- (Point to C.) What shape? (Signal.) Pentagon.
- (Point to **D.**) What shape? (Signal.) Rectangle.
- (Point to E.) What's the name of this rectangle? (Signal.) Square.

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- c. All the shapes in the top row are flat. All the shapes in the bottom row are not flat.Tell me the name of each shape that is not flat.
- (Point to **F.**) What shape? (Signal.) Cube.
- (Point to G.) What shape? (Signal.) Sphere.
- (Point to H.) What shape? (Signal.) Pyramid.
- (Point to **I**) What shape? (Signal.) *Pyramid.* (Repeat until firm.)

EXERCISE 9: INDEPENDENT WORK ACTION WORD PROBLEMS

a. Find part 2 in your textbook.

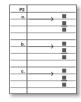
(Teacher reference:)

For each problem, make a number family with the letters for Start and End. Then work the problem and write the unit name.

a. Tonya had some pens.
 She bought 25 pens.
 She ended up with 61 pens.
 How many pens did she start with?

b. Jamal had some cherries.
 He ate 35 of the cherries.
 He ended up with 64 cherries.
 How many cherries did he start with?

c. Debbie started out with 85 dollars. She spent 19 dollars. How many dollars did she end up with?



I'll read the directions: For each problem, make a number family with the letters for Start and End. Then work the problem and write the unit name.

- b. I'll read the problems. Follow along.
- Problem A: Tonya had some pens. She bought 25 pens. She ended up with 61 pens. How many pens did she start with?
- Problem B: Jamal had some cherries. He ate 35 of the cherries. He ended up with 64 cherries. How many cherries did he start with?
- Problem C: Debbie started out with 85 dollars.
 She spent 19 dollars. How many dollars did she end up with?
- c. These are start-end problems. You'll work them as part of your independent work. Remember to write the unit name in your answer.

Assign Independent Work, Textbook parts 2–6 and Workbook parts 6 and 7.

Optional extra math-fact practice worksheets for all lessons are available on ConnectED.

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