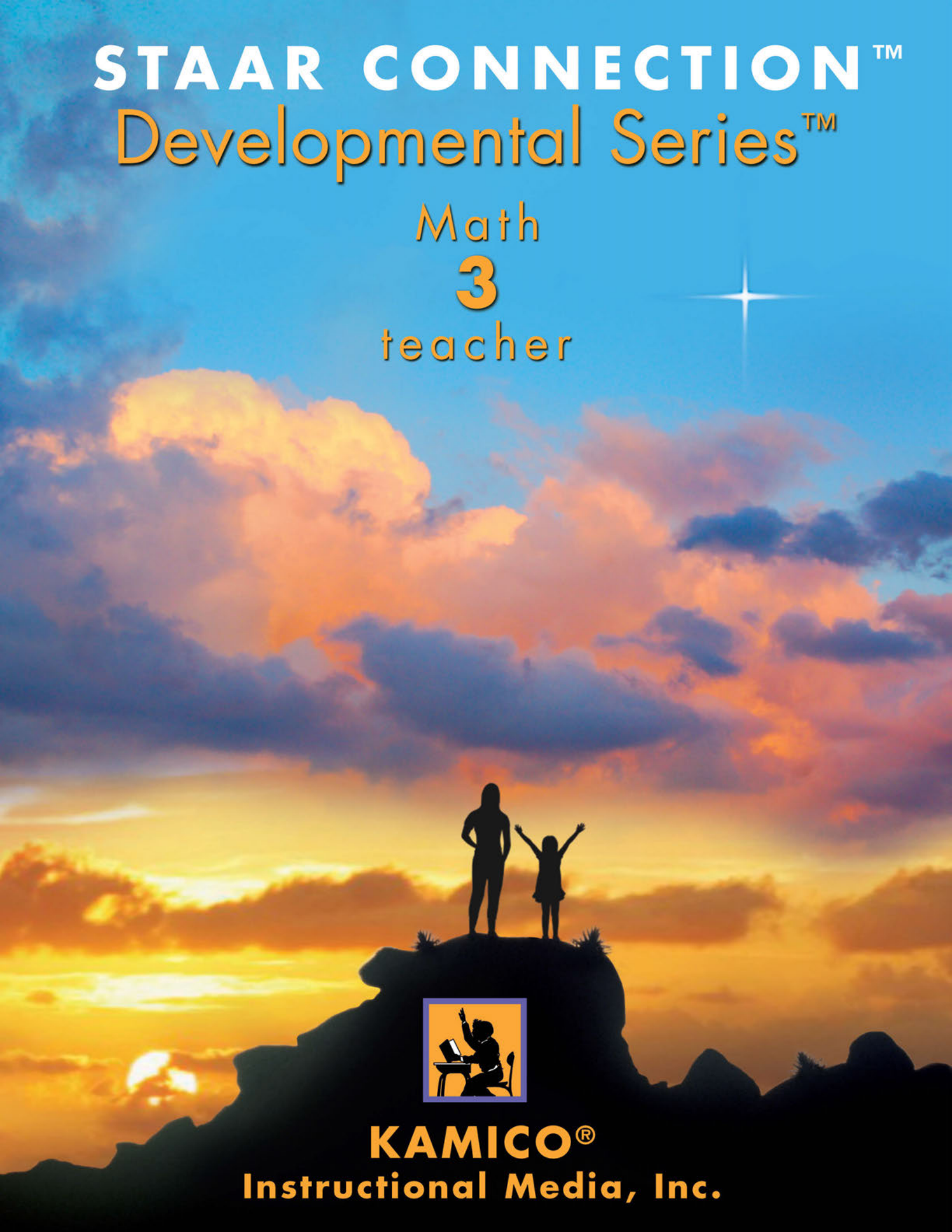
STAAR CONNECTION™

Developmental Series™

Math

3

teacher



KAMICO®
Instructional Media, Inc.

STAAR CONNECTION™

Math
3
teacher

Developmental Series™

XXVIII/ii/MMXX
Version 1

KAMICO®
Instructional Media, Inc.

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KAMICO® Instructional Media, Inc.
STAAR CONNECTION™
Introduction

KAMICO® Instructional Media's program is validated by scientifically based research. **STAAR CONNECTION™ Diagnostic Series™** and **Developmental Series™** can be used in tandem to ensure mastery of Texas reporting categories and TEKS. The *Diagnostic Series™* consists of a bank of assessments. Each assessment covers a mixture of reporting categories and TEKS. This research-based format provides continual reinforcement for and ensures retention of mastered concepts. To take full advantage of this series, administer an assessment to students. After they have completed the assessment, use it as an instructional tool. Go over each item with the class, discussing all correct and incorrect answers. Then, use the assessment as a diagnostic tool to determine a standard for which students need remediation. Find that standard in the *Developmental Series™*.

Each book in the *STAAR CONNECTION™ Developmental Series™* consists of isolated activities and assessments to allow for the development of specific TEKS. For every TEKS, there is at least one individual or group activity. The activities provide a fun, challenging, yet nonthreatening, way to develop mastery of the TEKS. In addition to these activities, each *Developmental Series™* book has assessments on isolated standards to be used to identify mastery or the need for further skill development or reinforcement. Continue to alternate between the *STAAR CONNECTION™ Diagnostic Series™* and the *Developmental Series™*.

KAMICO's **DATA CONNECTION®** software prints student answer sheets on plain paper using a standard laser printer, scans answer sheets using a TWAIN-compliant scanner, scores assessments, and disaggregates student academic data, showing which goals and objectives are mastered and which goals and objectives are in need of reinforcement. The software is preprogrammed to work with all KAMICO® assessments. It is easily customized to work with other instructional materials and assessments as well as teacher-, school-, district-, or state-created assessments. DATA CONNECTION® analyzes academic data from individual students, classes, grade levels, and demographic groups. Reports are presented in tabular and graphic form. Item analysis is provided to help determine the most effective method of instruction.

KAMICO® Instructional Media, Inc., supports efforts to ensure adequate yearly progress and eliminate surprises in high-stakes test results.

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Grade 3 Mathematics
Reporting Categories and Related TEKS

Reporting Category 1:
Numerical Representations and Relationships
The student will demonstrate an understanding of how to represent and manipulate numbers and expressions.

(3.2) **Number and operations**. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to

(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate; ***Readiness Standard***

(B) describe the mathematical relationships found in the base-10 place value system through the hundred thousands place; ***Supporting Standard***

(C) represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers; ***Supporting Standard***

(D) compare and order whole numbers up to 100,000 and represent comparisons using the symbols >, <, or =. ***Readiness Standard***

Reporting Category 2:
Computations and Algebraic Relationships

The student will demonstrate an understanding of how to perform operations and represent algebraic relationships.

Reporting Category 1: Numerical Representations and Relationships
TEKS 3.2C

Represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers

ACTIVITY
The Rounders of ROUNDER MOUNTAIN

Materials
The Rounders of Rounder Mountain number lines (student edition)
The Rounders of Rounder Mountain The Choice is Yours activity sheet (student edition)
Highlighter - one for each student
The Rounders of Rounder Mountain (enrichment) (student edition)

Procedure
As a class, read *The Rounders of Rounder Mountain*.

Enrichment
Students turn to *The Rounders of Rounder Mountain* enrichment sheet in their student editions. Students use *The Choice is Yours* activity sheet answers to complete the enrichment.

Enrichment Answer Key

Add each set of numbers. Write your answers in the first column. Then, subtract the smaller number from the larger number. Write your answers in the second column.

Question Number	Add the two rounded numbers.	Subtract the smaller rounded number from the larger rounded number.
1	30 + 10 = 40	30 – 10 = 20
2	30 + 70 = 100	70 – 30 = 40
3	150 + 140 = 290	150 – 140 = 10
4	370 + 440 = 810	440 – 370 = 70
5	600 + 200 = 800	600 – 200 = 400
6	800 + 800 = 1,600	800 – 800 = 0
7	300 + 600 = 900	600 – 300 = 300
8	1,200 + 2,700 = 3,900	2,700 – 1,200 = 1,500
9	3,200 + 9,700 = 12,900	9,700 – 3,200 = 6,500
10	5,000 + 7,000 = 12,000	7,000 – 5,000 = 2,000
11	8,000 + 10,000 = 18,000	10,000 – 8,000 = 2,000
12	18,000 + 27,000 = 45,000	27,000 – 18,000 = 9,000
13	35,000 + 91,000 = 126,000	91,000 – 35,000 = 56,000
14	52,000 + 43,000 = 95,000	52,000 – 43,000 = 9,000
15	80,000 + 80,000 = 160,000	80,000 – 80,000 = 0
16	60,000 + 40,000 = 100,000	60,000 – 40,000 = 20,000
17	80,000 + 70,000 = 150,000	80,000 – 70,000 = 10,000
18	90,000 + 90,000 = 180,000	90,000 – 90,000 = 0
19	70,000 + 30,000 = 100,000	70,000 – 30,000 = 40,000
20	80,000 + 20,000 = 100,000	80,000 – 20,000 = 60,000

The Rounders of Rounder Mountain

Rounder Mountain's a tough one to climb.

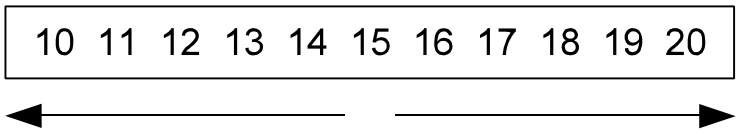
But the freight's gotta go through! Yep! Every time!

So it's our job to carry it, and move it through the pass!

They call us the ROUNDERS 'CAUSE WE *ROUND'EM UP FAST!*

I'll show you how we do it, Are you up to the task?

We'll start by rounding to the nearest **10**



Now in order to clear the pass, and receive our big prize
We first have to look at the number's relative size!

If the number in the ones place is 5 or greater, we round up to the nearest ten.
If the number in the one's place is less than 5, we round down to the nearest ten.

And soon all the wagons are off for the ride.
Best part of this job? It's easy to say.

Because tens, hundreds, thousands, and ten thousands
THEY WORK THE SAME WAY!!

We roll those numbers at a fantastic pace
because we always round from the correct place!

ROUNDER MOUNTAIN RULES

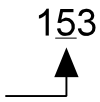
When rounding to the nearest 10:
Look at the one's place

When rounding to the nearest 100:
Look at the ten's place

When rounding to the nearest 1,000:
Look at the hundred's place

When rounding to the nearest 10,000:
Look at the hundred's place

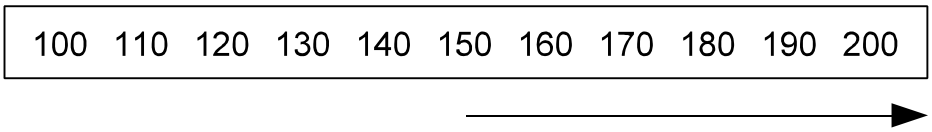
Rounding to the nearest 100? Why, that sounds tough!
Just look to the tens place, and get out of the rough!



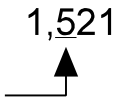
We round from the ten's place (see ROUNDER MOUNTAIN RULES)

If number in the ten's place is 5 or greater, round up to nearest hundred.
If the number in the ten's place is less than 5, round down to the nearest hundred.

Sooooooooo...ROUND WE GO!



Rounding to the nearest thousands? Sounds too hard to be true!
But we're the ROUNDERS! We know what to do!

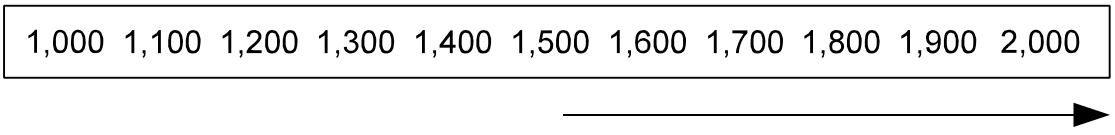


We round from the hundred's place (see ROUNDER MOUNTAIN RULES)

If the number in the hundred's place is 5 or greater,
round up to the nearest thousand.

If the number in the hundred's place is less than 5,
round down to the nearest thousand.

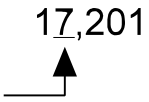
Sooooooooo...ROUND WE GO!



So there now you have it, from the ground to the top
The Rounders of the Mountain are too hard to stop!

Knowing which place, and which number goes where,
Will make you a rounder, and you'll ROUND fair and square!

Here's one last practice, for practice sake.
Rounding to the nearest ten thousand, for goodness sake!



We round from the thousand's place (see ROUNDER MOUNTAIN RULES)

If the number in the thousand's place is 5 or greater,
round up to the nearest ten thousand.

If the number in the thousand's place is less than 5,
round down to the nearest ten thousand.

So there now you have it, from the ground to the top

The Rounders of the Mountain are too hard to stop!

Knowing which place, and which number goes where,

Will make you a rounder,

And you'll ROUND fair and square!

Students turn to Rounder Mountain: The Choice is Yours activity sheet in their student editions. As a class, read the first question. Each student highlights his or her answer. Then, students use the appropriate number to help as they round the numbers in the chart and write the rounded numbers below.

Use the Rounder Mountain tens number line as you answer questions 1 - 4.

1 Which do you like best? Highlight your answer.

flowers in the spring	25
leaves in the fall	12

Now, round each number to the nearest 10.

25 rounds to **30**
12 rounds to **10**

2 Which would you rather do? Highlight your answer.

skip ahead 5 years	32
go back 5 years	67

Now, round each number to the nearest 10.

32 rounds to **30**
67 rounds to **70**

3 Which do you listen to the most? Highlight your answer.

your heart	153
your mind	136

Now, round each number to the nearest 10.

153 rounds to **150**
136 rounds to **140**

4 Which do you like best? Highlight your answer.

cake	366
pie	442

Now, round each number to the nearest 10.

366 rounds to **370**
442 rounds to **440**

Use the Rounder Mountain hundreds number line as you answer questions 5 - 9.

5 Which would you rather do? Highlight your answer.

watch TV	561
read a book	224

Now, round each number to the nearest 100.

561 rounds to **600**
224 rounds to **200**

6 Which do you like best? Highlight your answer.

milk	771
apple juice	829

Now, round each number to the nearest 100.

771 rounds to **800**
829 rounds to **800**

7 Which do you do most often? Highlight your answer.

laugh	258
cry	617

Now, round each number to the nearest 100.

258 rounds to **300**
617 rounds to **600**

8 Which do you like most? Highlight your answer.

carrots	1,221
chocolate	2,690

Now, round each number to the nearest 100.

1,221 rounds to **1,200**
2,690 rounds to **2,700**

9 Where would you rather live? Highlight your answer.

by a park	3,242
by a neighborhood swimming pool	9,670

Now, round each number to the nearest hundred.

3,242 rounds to **3,200**
9,670 rounds to **9,700**

Use the Rounder Mountain thousands number line as you answer questions 10-14.

10 Which is more important to you? Highlight your answer.

shoes	5,410
socks	6,603

Now, round each number to the nearest thousand.

5,410 rounds to **5,000**
6,603 rounds to **7,000**

11 Where would you rather live? Highlight your answer.

in the city	7,846
in the country	9,577

Now, round each number to the nearest thousand.

7,846 rounds to **8,000**
9,577 rounds to **10,000**

12 Which would you rather have for a pet? Highlight your answer.

a donkey	18,090
a dog	27,114

Now, round each number to the nearest thousand.

18,090 rounds to **18,000**
27,114 rounds to **27,000**

13 Which color do you like most? Highlight your answer.

red	35,305
yellow	90,641

Now, round each number to the nearest thousand.

35,305 rounds to **35,000**
90,641 rounds to **91,000**

14 Which would you rather have for a pet? Highlight your answer.

a goat	51,562
a cat	43,233

Now, round each number to the nearest thousand.

51,562 rounds to **52,000**
43,233 rounds to **43,000**

Use the Rounder Mountain ten thousands number line as you answer questions 15-20.

15 Which do you like most?

football	82,777
basketball	76,856

Now, round each number to the nearest ten thousand.

82,777 rounds to **80,000**
76,856 rounds to **80,000**

16 Which would you rather have? Highlight your answer.

long hair	64,428
short hair	42,451

Now, round each number to the nearest ten thousand.

64,428 rounds to **60,000**
42,451 rounds to **40,000**

17 Which would you rather people think about you? Highlight your answer.

you are happy	80,715
you are kind	71,293

Now, round each number to the nearest ten thousand.

80,715 rounds to **80,000**
71,293 rounds to **70,000**

18 Which would you rather have? Highlight your answer.

a flower	92,116
an apple	85,260

Now, round each number to the nearest ten thousand.

92,116 rounds to **90,000**
85,260 rounds to **90,000**

19 Which do you like the most? Highlight your answer.

hamburgers	72,683
hot dogs	33,241

Now, round each number to the nearest ten thousand.

72,683 rounds to **70,000**
33,241 rounds to **30,000**

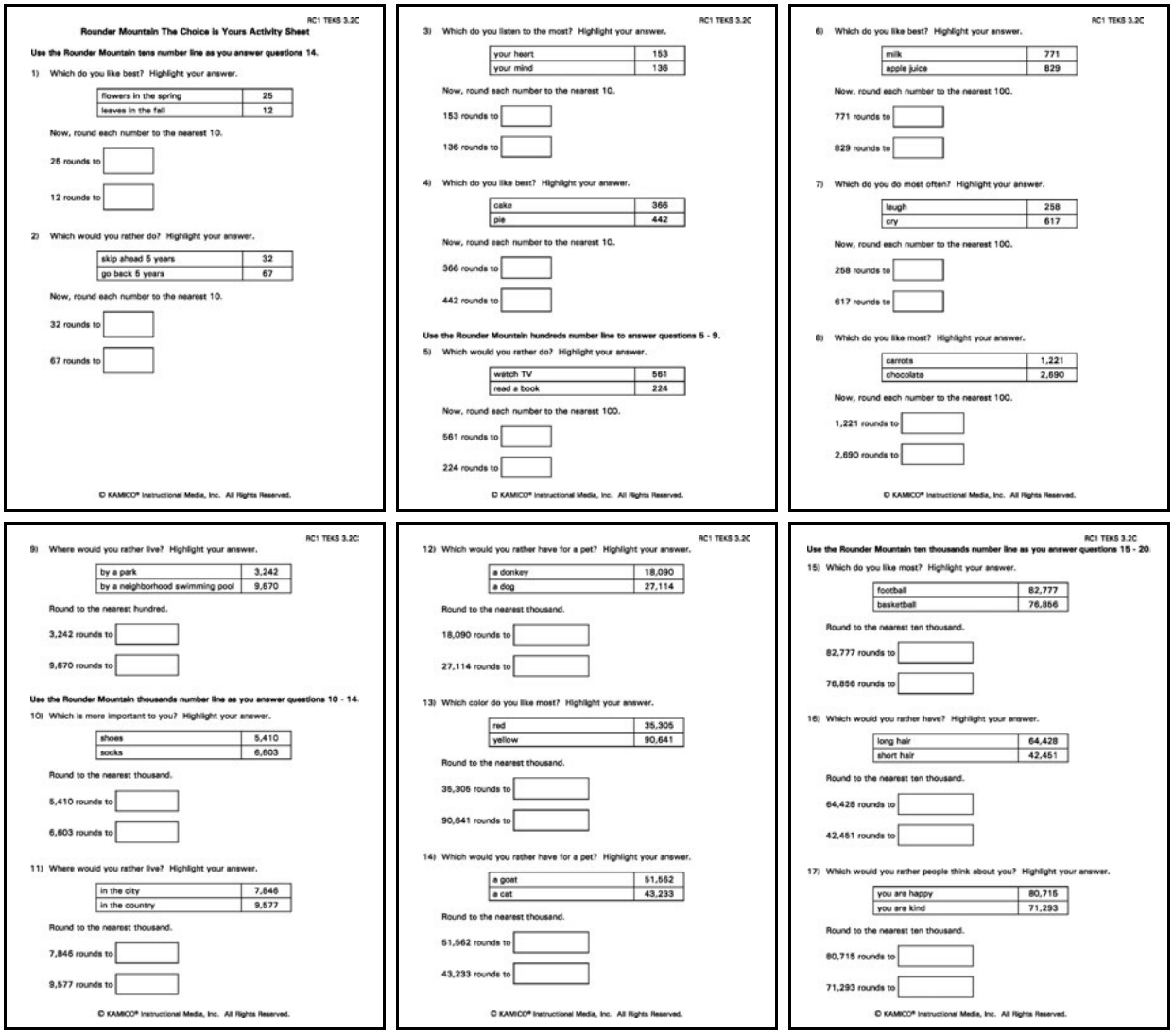
20 Which would you rather have? Highlight your answer.

lots of friends	83,352
one best friend	21,434

Now, round each number to the nearest ten thousand.

83,352 rounds to **80,000**
21,434 rounds to **20,000**

Activity Components Provided in Student Edition



RC1 TEKS 3.2C

Rounder Mountain The Choice is Yours Activity Sheet

Use the Rounder Mountain tens number line as you answer questions 14.

1) Which do you like best? Highlight your answer.

flowers in the spring	25
leaves in the fall	12

Now, round each number to the nearest 10.

25 rounds to ____

12 rounds to ____

2) Which would you rather do? Highlight your answer.

skip ahead 5 years	32
go back 5 years	67

Now, round each number to the nearest 10.

32 rounds to ____

67 rounds to ____

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RC1 TEKS 3.2C

3) Which do you listen to the most? Highlight your answer.

your heart	153
your mind	136

Now, round each number to the nearest 10.

153 rounds to ____

136 rounds to ____

4) Which do you like best? Highlight your answer.

cake	366
pie	442

Now, round each number to the nearest 10.

366 rounds to ____

442 rounds to ____

Use the Rounder Mountain hundreds number line to answer questions 5 - 9.

5) Which would you rather do? Highlight your answer.

watch TV	561
read a book	224

Now, round each number to the nearest 100.

561 rounds to ____

224 rounds to ____

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RC1 TEKS 3.2C

6) Which do you like best? Highlight your answer.

milk	771
apple juice	829

Now, round each number to the nearest 100.

771 rounds to ____

829 rounds to ____

7) Which do you do most often? Highlight your answer.

laugh	258
cry	617

Now, round each number to the nearest 100.

258 rounds to ____

617 rounds to ____

8) Which do you like most? Highlight your answer.

carrots	1,221
chocolate	2,690

Now, round each number to the nearest 100.

1,221 rounds to ____

2,690 rounds to ____

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RC1 TEKS 3.2C

9) Where would you rather live? Highlight your answer.

by a park	3,242
by a neighborhood swimming pool	9,670

Round to the nearest hundred.

3,242 rounds to ____

9,670 rounds to ____

Use the Rounder Mountain thousands number line as you answer questions 10 - 14.

10) Which is more important to you? Highlight your answer.

shoes	5,410
socks	6,603

Round to the nearest thousand.

5,410 rounds to ____

6,603 rounds to ____

11) Where would you rather live? Highlight your answer.

in the city	7,846
in the country	9,577

Round to the nearest thousand.

7,846 rounds to ____

9,577 rounds to ____

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RC1 TEKS 3.2C

12) Which would you rather have for a pet? Highlight your answer.

a donkey	18,090
a dog	27,114

Round to the nearest thousand.

18,090 rounds to ____

27,114 rounds to ____

13) Which color do you like most? Highlight your answer.

red	35,305
yellow	90,641

Round to the nearest thousand.

35,305 rounds to ____

90,641 rounds to ____

14) Which would you rather have for a pet? Highlight your answer.

a goat	51,562
a cat	43,233

Round to the nearest thousand.

51,562 rounds to ____

43,233 rounds to ____

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RC1 TEKS 3.2C

Use the Rounder Mountain ten thousands number line as you answer questions 15 - 20.

15) Which do you like most? Highlight your answer.

football	82,777
basketball	76,856

Round to the nearest ten thousand.

82,777 rounds to ____

76,856 rounds to ____

16) Which would you rather have? Highlight your answer.

long hair	64,428
short hair	42,451

Round to the nearest ten thousand.

64,428 rounds to ____

42,451 rounds to ____

17) Which would you rather people think about you? Highlight your answer.

you are happy	80,715
you are kind	71,293

Round to the nearest ten thousand.

80,715 rounds to ____

71,293 rounds to ____

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RC1 TEKS 3.2C

18) Which would you rather have? Highlight your answer.

a flower	92,116
an apple	85,260

Round to the nearest ten thousand.

92,116 rounds to ☐

85,260 rounds to ☐

19) Which do you like the most? Highlight your answer.

hamburgers	72,683
hot dogs	33,241

Round to the nearest ten thousand.

72,683 rounds to ☐

33,241 rounds to ☐

20) Which would you rather have? Highlight your answer.

lots of friends	83,352
one best friend	21,434

Round to the nearest ten thousand.

83,352 rounds to ☐

21,434 rounds to ☐

RC1 TEKS 3.2C

Tens Number Line
Multiples of 10

RC1 TEKS 3.2C

Hundreds Number Line
Multiples of 100

RC1 TEKS 3.2C

Thousands Number Line
Multiples of 1,000

RC1 TEKS 3.2C

Ten Thousands Number Line
Multiples of 10,000

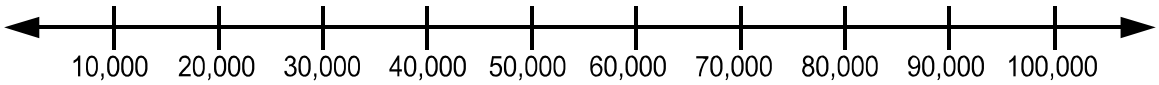
RC1 TEKS 3.2C

Enrichment
Add each set of numbers. Write your answers in the first column. Then, subtract the smaller number from the larger number. Write your answers in the second column.

Question Number	Add the two rounded numbers.	Subtract the smaller rounded number from the larger rounded number.
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Read each question carefully. For a multiple-choice question, determine the best answer to the question from the four answer choices provided. For a griddable question, determine the best answer to the question. Then fill in the answer on your answer document.

1 People flush about 27,000 trees' worth of toilet paper down the drain every day.



Which is true?

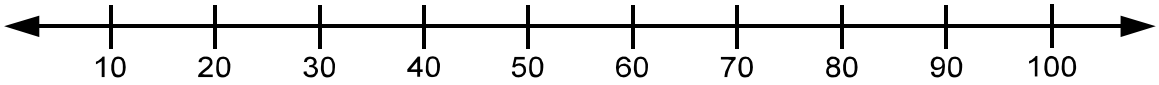
A 27,000 is closer to 20,000 than to 30,000

B 27,000 is closer to 10,000 than to 20,000

C 27,000 is closer to 30,000 than to 20,000

D 27,000 is the same distance to 20,000 as it is to 30,000

2 Some sharks can live to be 75 years old.



Which is true?

F 75 is between 60 and 70

G 75 is between 50 and 60

H 75 is between 70 and 80

J 75 is between 80 and 90

GO ON

3 The Leaning Tower of Pisa has a spiral staircase that goes from the ground all the way to the top of the tower. There are 293 steps in the staircase. 293 is closer to which multiple of 100?

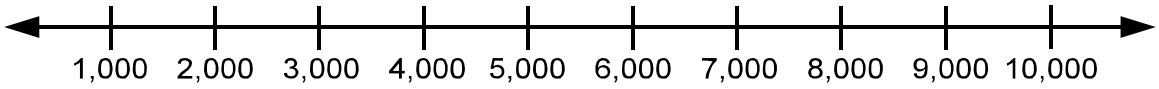
A 100

B 200

C 300

D 400

4 The world's first handheld cell phone cost $3,995.



Which is true?

F 3,995 is closer to 3,000 than to 4,000

G 3,995 is closer to 2,000 than to 3,000

H 3,995 is closer to 1,000 than to 2,000

J 3,995 is closer to 4,000 than to 3,000

GO ON

5 King penguins guard chicks and eggs. A King penguin might peck at predators 2,000 times a day. If there are 55 King penguins and each pecks at predators 2,000 times a day, that would be a total of 110,000 pecks a day. 110,000 is closer to which multiple of 100,000?

A 100,000

B 200,000

C 300,000

D 400,000

6 The Perth Mint in Australia made a 2.2 pound gold coin that was worth $62,950. Which is true?

F 62,950 is between 50,000 and 60,000

G 62,950 is between 60,000 and 70,000

H 62,950 is between 70,000 and 80,000

J 62,950 is between 80,000 and 90,000

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS ON THE ANSWER DOCUMENT.