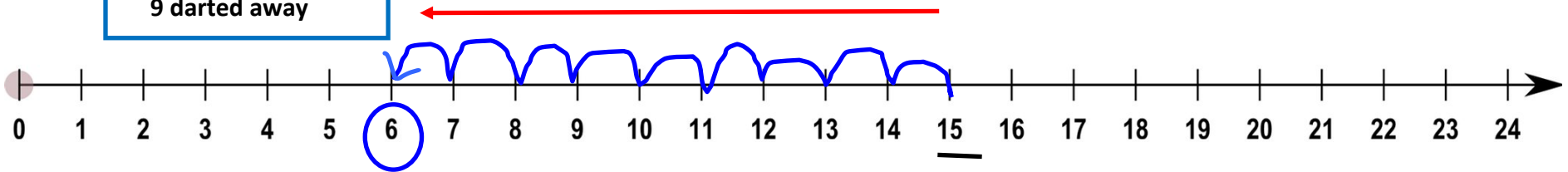




Problem N.

15 fish
9 darted away

Sample Solutions — Unit 2



Problem J.

2, 7, 9

Fact Families

Problem L.

6, 9, 15

2
7
9

$2 + 7 = 9$

$7 + 2 = 9$

$9 - 7 = 2$

$9 - 2 = 7$

6
9
15

$6 + 9 = 15$

$9 + 6 = 15$

$15 - 6 = 9$

$15 - 9 = 6$



Problem N.

| TENS | ONES |
|--------------------|---------------|
| | <p>15</p> |
| <p>10</p> <p>—</p> | <p>9</p> |
| <p>—</p> | <p>6 fish</p> |

Problem N. Ask students

- How to write the 15 fish swimming? **(1 ten, 5 ones)**
- How to write the 9 fish that dart away? **(9 ones)**
- How many are left? Add or Subtract? **(can count up from 9 to 15 or Subtract)**

If subtracting:

How do we subtract 5 ones minus 9 ones?

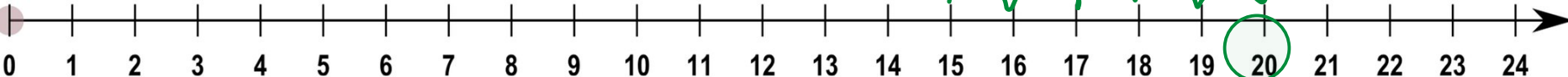
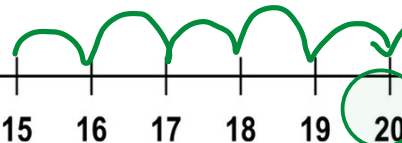
- Ask student to draw blocks or dots for the 5 ones and 9 ones.
- The 5 ones are part of the number 15. Can break the 1 ten into 10 ones and move them all to the Ones place.
- Student can draw the 10 new blocks in the ones place that join the 5.
- Cross of the 9 blocks one at a time and cross off 9 blocks from the top.
- How much are left? **(6)**
- **15 - 9 = 6 fish**

(Instead of drawing tens and ones, students can use the paper \$10 and \$1 for the tens place and ones place.)

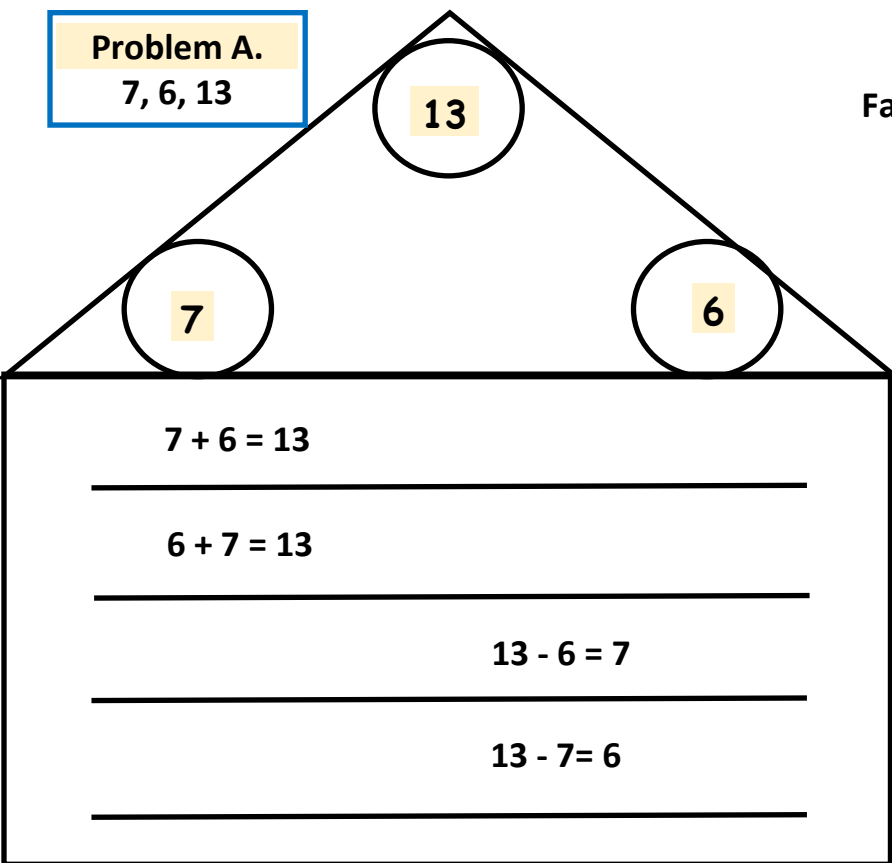


Samples of ways to solve problems — Unit 3

Problem 5.
Read at school-15 books
Read at home- 5 books

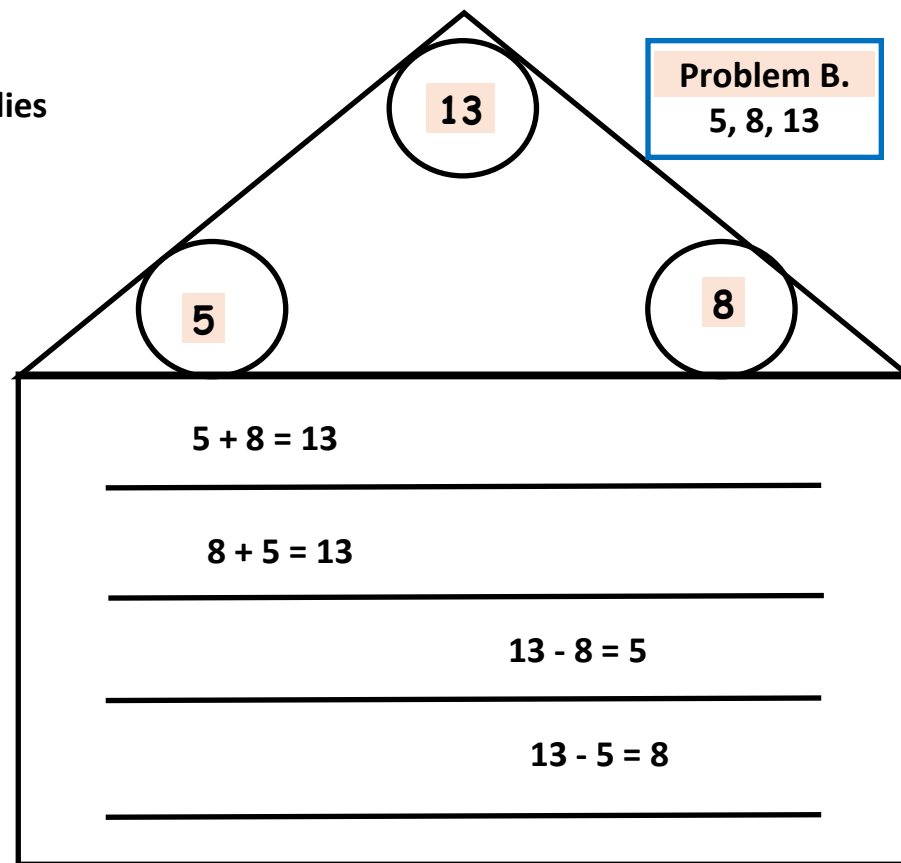


Problem A.
7, 6, 13



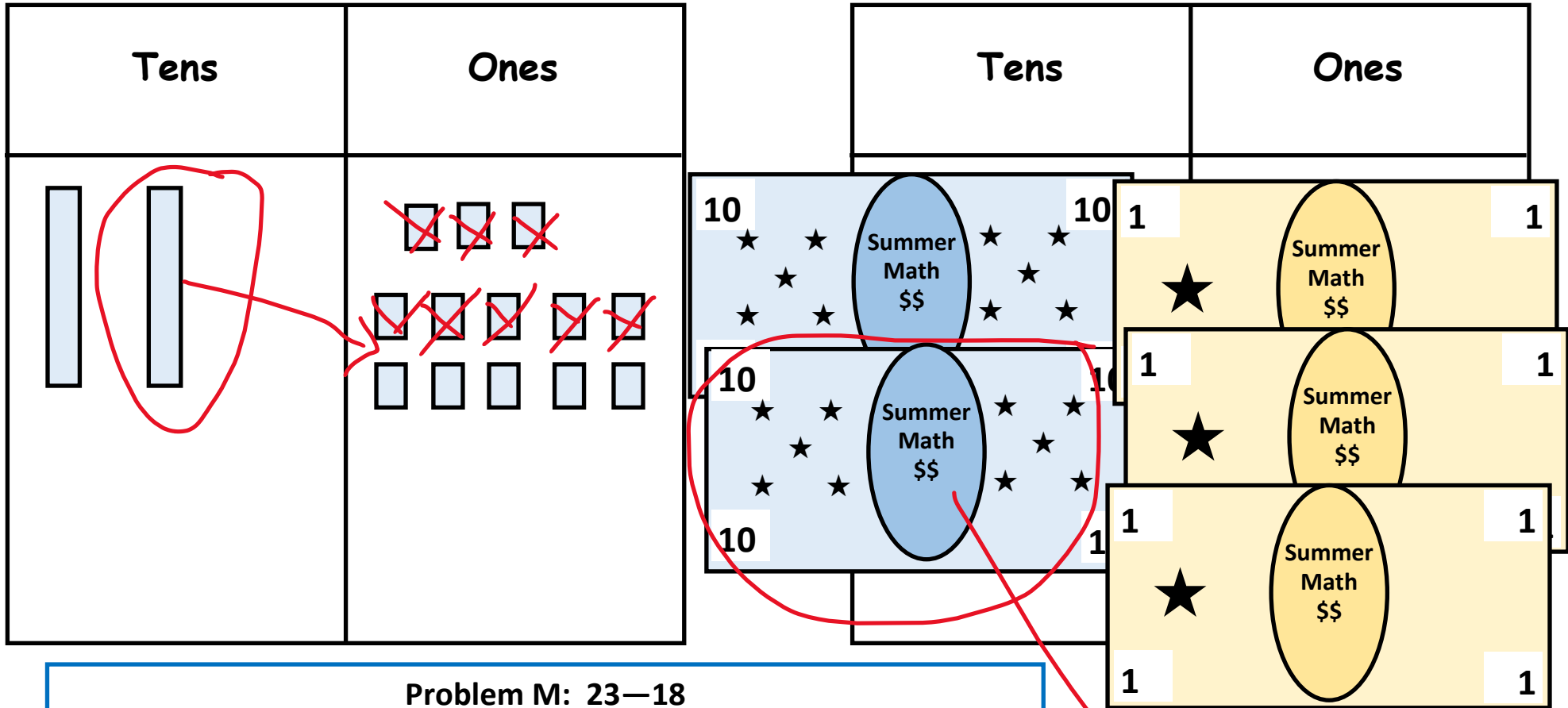
Fact Families

Problem B.
5, 8, 13





Sample Solutions – Unit 3. Students can use this page to draw pictures or use the paper play money from the Student Packs or draw tallies to represent the numbers and actions of trading/regrouping.



Problem M: 23—18

How many TENS are in **23**? Draw 2 long rectangles in the TENS place. How many ONES are in **23**? **(3)** Draw 3 short squares in the ONES place.

How many ONES in **18**? **(8)** Can the student subtract 8 ONES away for the 3 ONES? No, need to trade/regroup/move 1 TEN to the ONES place. That means breaking it into ONES. How many ONES are there now? **(3 + 10 = 13)** Can student take away 8? (cross out) How many ONES are left? **(7)**

23 has 1 TEN remaining in the TENS place. How many TENS does **18** have? **(1)** Subtract **(1-1 = 0)** How many TENS are left? **(0)**

(write equation and have student fill in the answer: [**23 - 18 = 7**])

If using the paper money, change the 1 TEN into 10 ONES

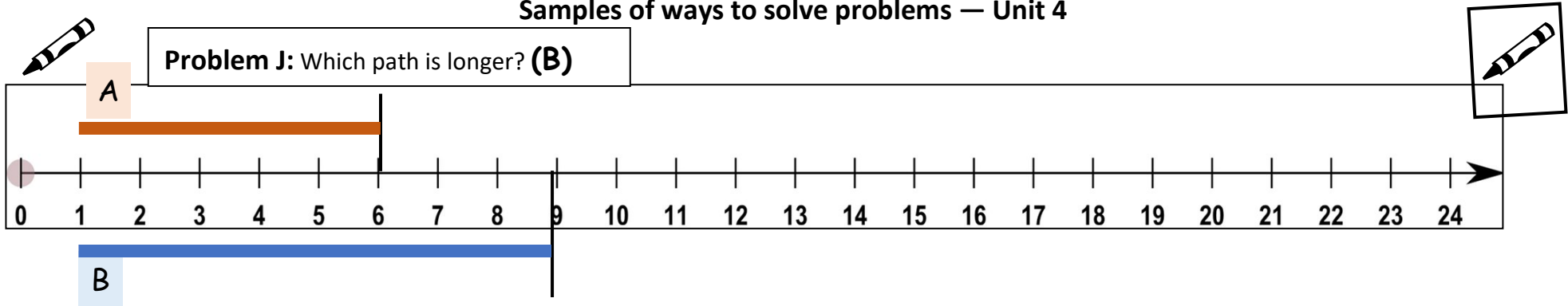


Problem N: 41 – 29

| TENS | ONES |
|------|------|
| | |
| | |
| 1 | 2 |

| TENS | ONES |
|------|------|
| | |
| - 2 | 9 |
| 1 | 2 |

Samples of ways to solve problems — Unit 4



Problem A.
8, 7, 15

15

8

7

$8 + 7 = 15$

$7 + 8 = 15$

$15 - 8 = 7$

$15 - 7 = 8$

Fact Families

Problem C.
8, 9, 17

17

8

9

$8 + 9 = 17$

$9 + 8 = 17$

$17 - 8 = 9$

$17 - 9 = 8$

Students can use this page to draw pictures or use the paper play money from the Student Packs or draw tallies to represent the numbers and actions of trading/regrouping.



| Tens | Ones |
|------|------|
| | |
| | |

Problem G: $55 - 38 = ?$

How many TENS are in **55**? Draw 5 long rectangles in the TENS place. How many ONES are in **55**? Draw 5 short squares in the ONES place.

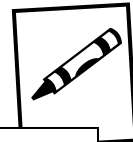
How many ONES in **38**? (8) Can the student subtract 8 ONES away for the 5 ONES? No, need to trade/regroup/move 1 TEN to the ONES place. That means breaking it into ONES. How many ONES are there now? ($5 + 10 = 15$) Can student take away 8? (cross out) How many ones are left? (7)

55 has 4 TENS remaining in the TENS place. How many TENS does **38** have? (**3**) Subtract. ($4 - 3 = 1$) How many TENS are left? (**1**) What is the final answer? (**17**)

Write equation and have student fill in the answer: [**$55 - 38 = 17$**].

Or ask the student use the play money instead of drawing the rods and units.

Change the 1 TEN into 10 ONES



| | |
|-------------------|-------------|
| Problem N. | |
| TENS | ONES |
| | |
| | |
| | |
| | |

35 fewer small camels

Big Camels – 62
 Small Camels – 27
 How many fewer small camels?

Do you want to count up from 27 to 62 or subtract?
If Subtracting:

- What is the larger number? **(62)**
- What is the equation we use to solve?
(62 – 27 = ?)
- How many TENS are in 62? **(6)** Draw 6 long rectangles in the TENS place.
- How many ONES are in **62**? **(2)** Draw 2 short squares in the ONES place.

Subtracting ONES:
 What do we need to do to subtract 7 ONES from 2 ONES?

- Trade/regroup/move 1 TEN to the ONES place. That means breaking it into ONES. How many ONES are there now? **(2 + 10 = 12)**
- How many ones are left from 12 - 7? **(5)**

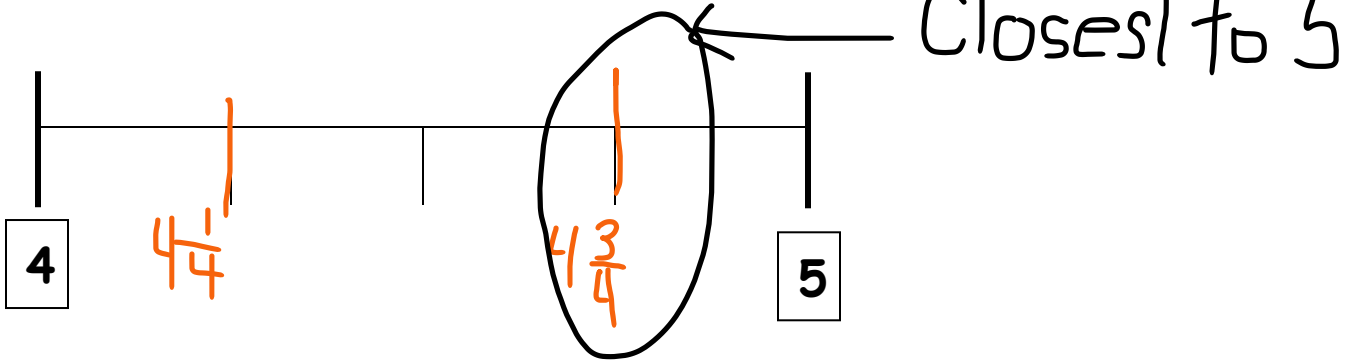
Subtracting TENS

- How many TENS are left in the TENS place for 62? **(6 – 1 = 5)**
- How many TENS does the number 27 have? **(2)**
- Subtract. How many TENS are left? **(5 – 2 = 3)**
- What is the final answer? **(35)**

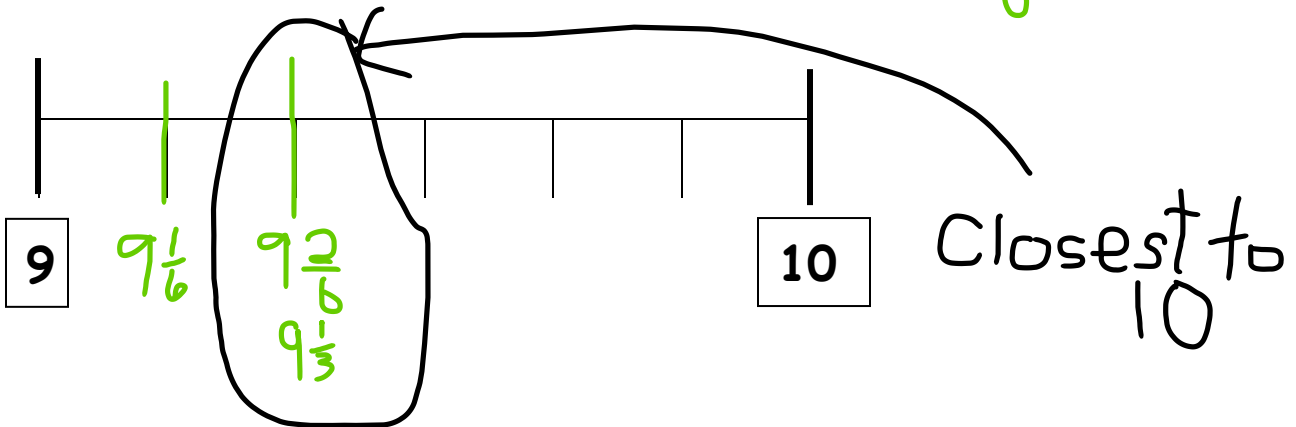
Write equation and have student fill in the answer:
[62 – 27 = 35 fewer].

Note: The student use the play money instead of drawing the rods and units.

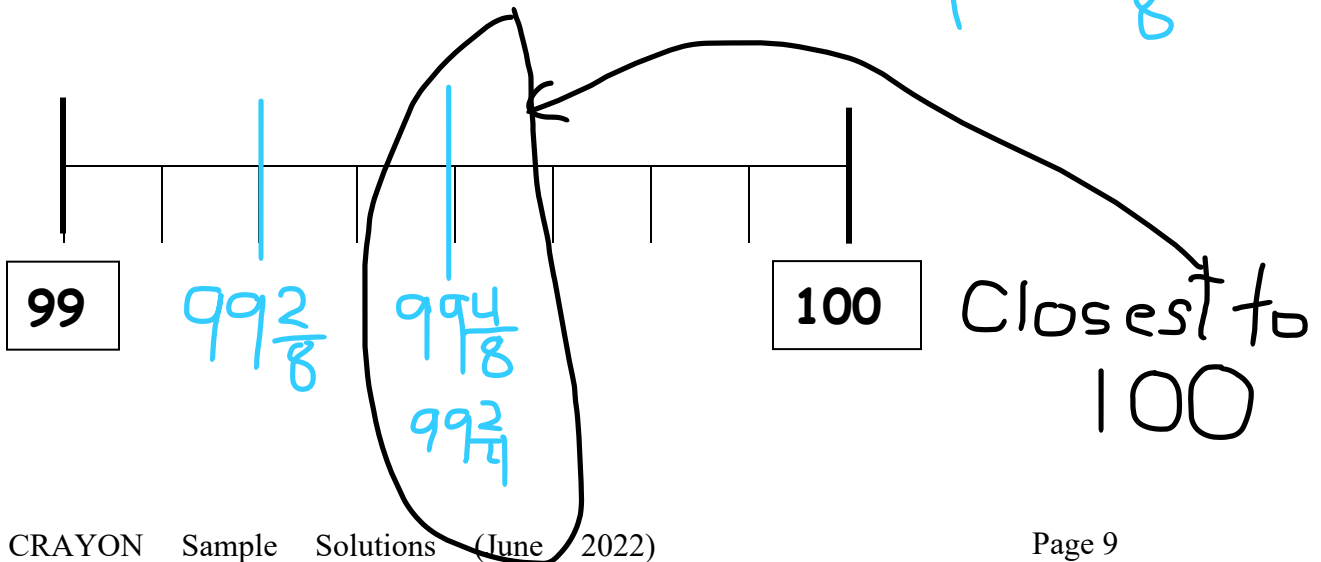
Problem J. Which number is closest to 5?



Problem K. Which number is closest to 10? $\frac{1}{3} = \frac{2}{6}$

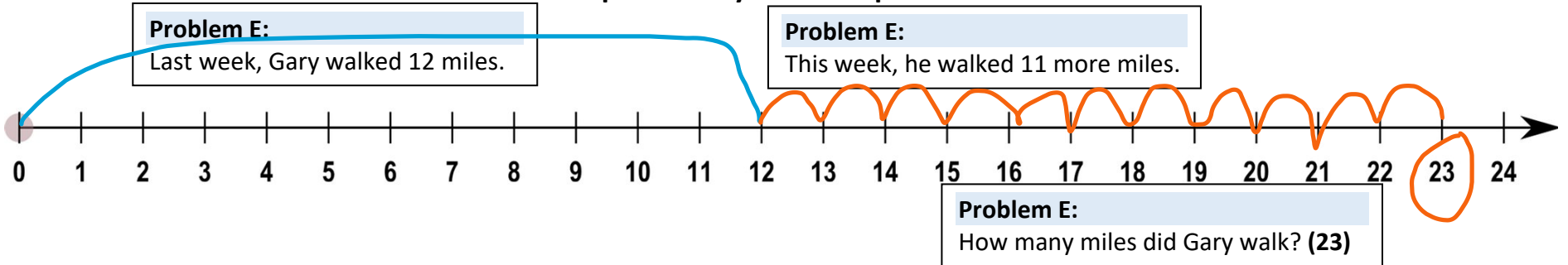


Problem L. Which number is closest to 100? $\frac{2}{4} = \frac{4}{8}$

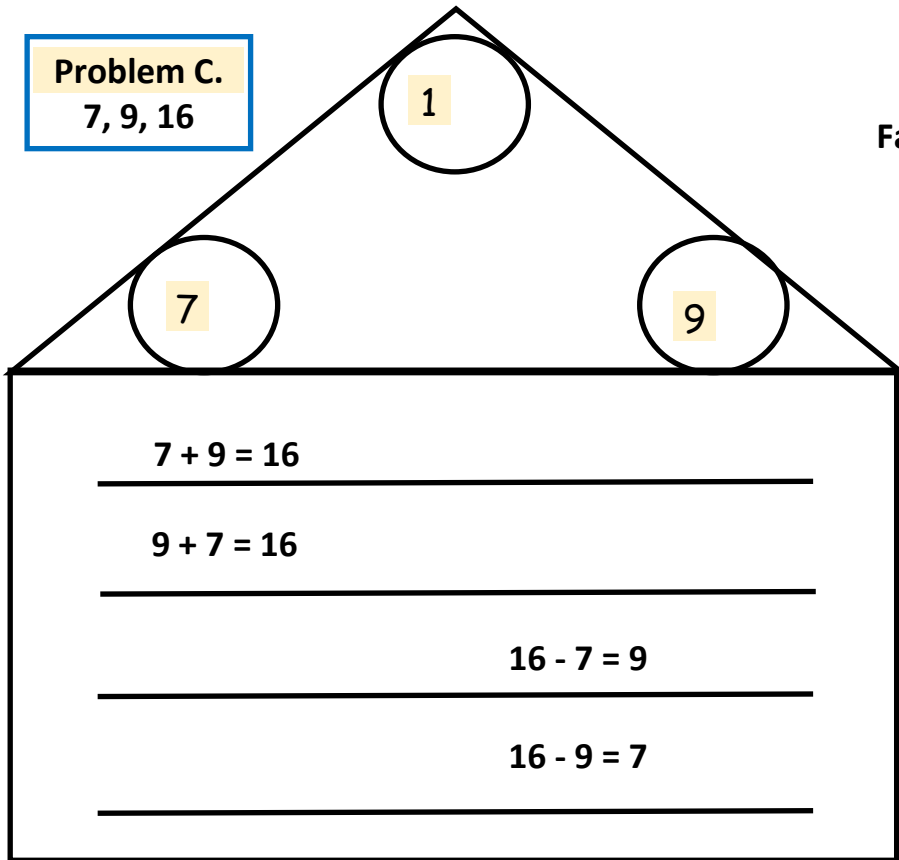




Samples of ways to solve problems — Unit 5

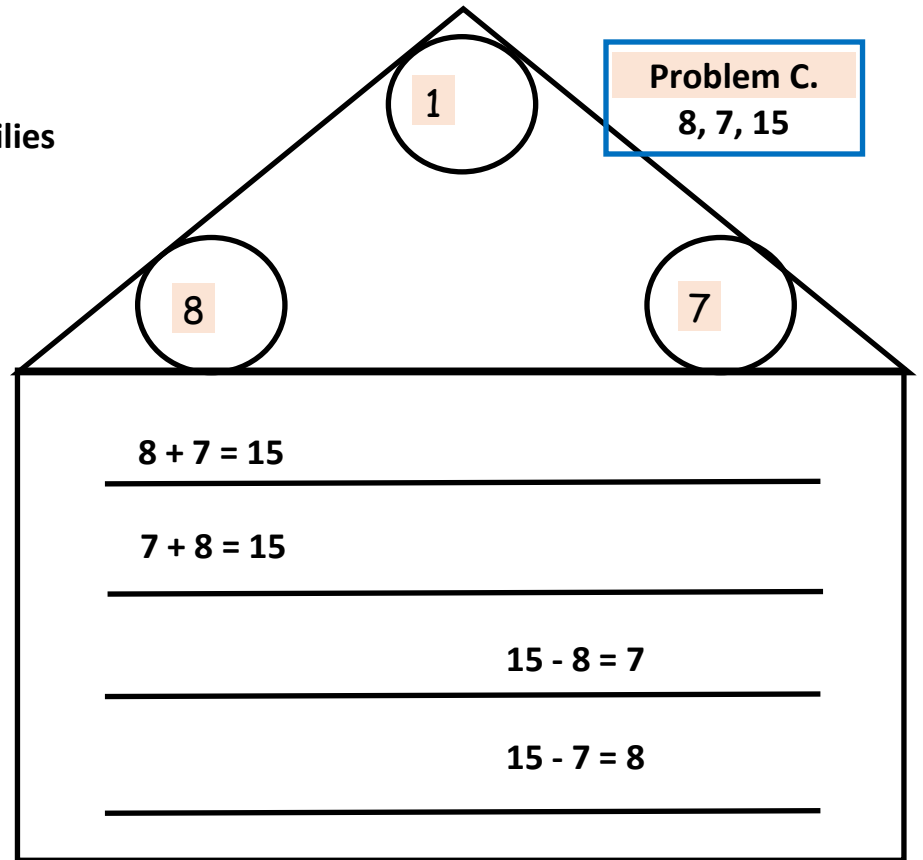


Problem C.
7, 9, 16



Fact Families

Problem C.
8, 7, 15



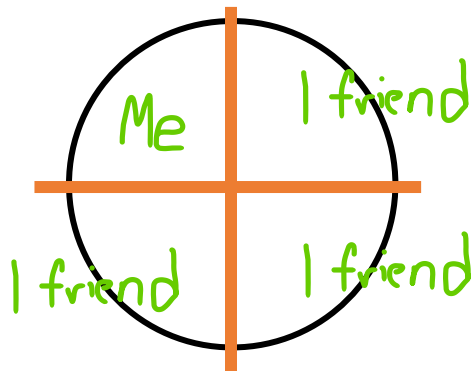
Students can use this page to draw pictures or use the paper play money from the Student Packs or draw tallies to represent the numbers and actions of trading/regrouping.

| Problem F. Tens | Ones |
|---|---|
| | |
| $\begin{array}{r} 15 \\ + 9 \\ \hline 24 \end{array}$ | $\begin{array}{r} 5 \\ + 9 \\ \hline 4 \end{array}$ |
| 2 | 4 |

Problem K.

Fair share a circle for yourself and 3 friends.

- Students often skip over themselves having a fair share, too.



Problem F: David read 15 Books. Then he read 9 more

How many books does David read first? (15)

- How many TENS are in 15? (1) Draw 1 long rectangle in the TENS place.
- How many ONES are in 15? (5) Draw 5 short squares in the ONES place.

What changes in the problem? (David reads 9 more books)

- Are we adding or removing books? (**adding**)
- How many are we adding? (9)
- Does 9 go in the ONES place or TENS place? (ONES place)

Now we are ready to add.

- Let's start with the ONES place.
- How many ONES do we have? ($5 + 9 = 14$)

Whoa, 14 has TENS and ONES.

- Let's bundle 10 ONES and move them to the TENS column. (circle the 10 ONES & draw an arrow to show the move.)
- How do we show the 10 ONES are bundled into 1 TEN? (**1 long rectangle**)

How many ONES are left? (4)

- Write (4) at the bottom of the ONES column.

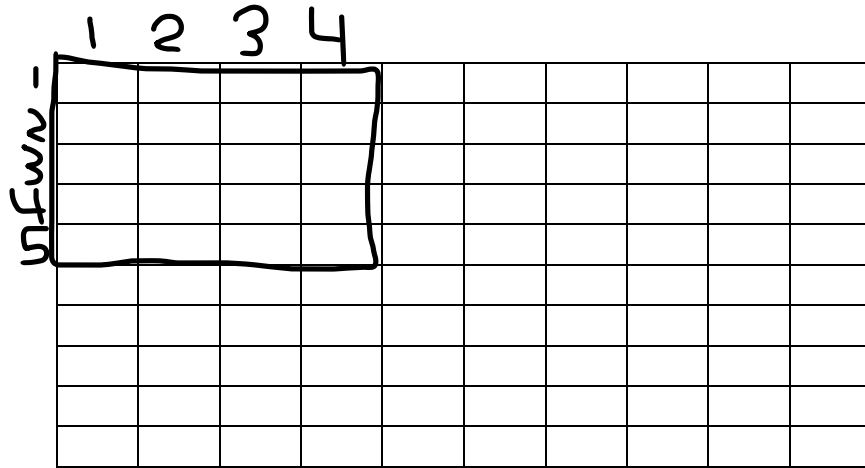
How many TENS do we have now? (2)

- Write (2) at the bottom of the TENS column. (2 TENS = 20)
- How do we read this number, with (20) TENS and (4) ONES? (**twenty-four**).

(Write the equation as talking for student to complete)

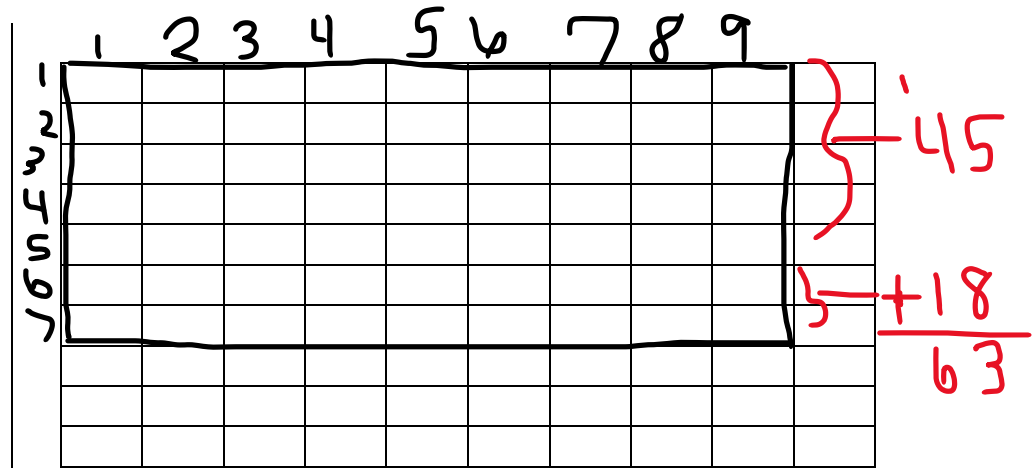
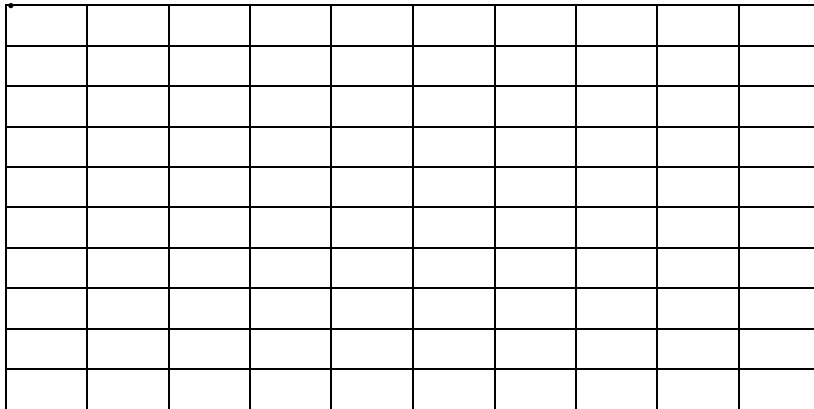
[15 books + 9 more books = 24 books]

David read 24 books.



D. Draw an array for 5 x 4

Do you want to make 4 rows with 5 columns or 5 rows with 4 columns?... Draw. Not required from the question, but still ask: What does 5 x 4 equal? (20)

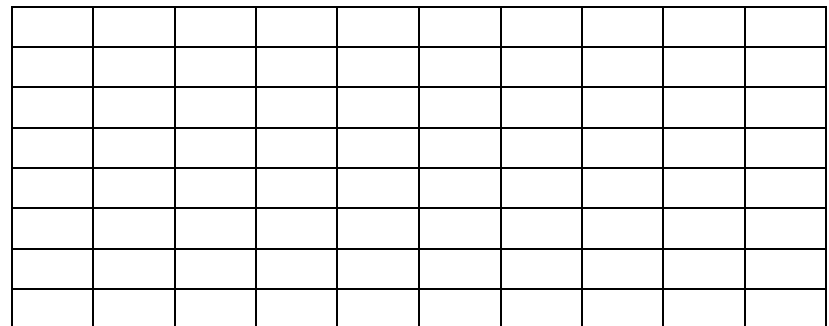


E. What's missing? $__ \div 7 = 9$ (if student needs help responding)

What is missing? The row or product total? (product/total)
 How can we use the 7 and 9 to find out the product or total? (multiply 7 x 9; skip count; make an array?) Do you know 5 x 9? (45) We can break apart the 7 into 5 plus what? (2) Do you know what 2 x 9 is?

$$\begin{array}{l} 5 \times 9 = 45 \\ 2 \times 9 = 18 \end{array} \quad \text{Add: } \begin{array}{l} 45 = 40 + 5 \\ + 18 = 10 + 8 \end{array}$$

$$\begin{array}{l} 50 + 10 + 3 = 60 + 3 \\ = 63 \end{array}$$



| ONES | tenths $\left(\frac{x}{10}\right)$ | hundredths $\left(\frac{x}{100}\right)$ |
|------|------------------------------------|---|
| | | |

B. Start with decimal and write the fraction: 0.5 How do we read this decimal? (5 tenths) How do you write 5 tenths as a fraction? $\frac{5}{10}$

| ONES | tenths $\left(\frac{x}{10}\right)$ | hundredths $\left(\frac{x}{100}\right)$ |
|------|------------------------------------|---|
| 0 | 5 | 00 |

I. $\frac{2}{100} = \boxed{0.02}$ How many ONES? (0)
How many tenths? (0)
How many hundredths? (units) (2)

| ONES | tenths $\left(\frac{x}{10}\right)$ | hundredths $\left(\frac{x}{100}\right)$ |
|------|------------------------------------|---|
| | 00000 00 | 00000 |

J. Write decimal for $\frac{3}{4}$.

We cannot go straight to a decimal from fourths. We need another step.

Do “fourths” have an equivalent fraction to tenths? Does $4 \times$ (anything) = 10? (no)

Do fourths have an equivalent fraction to hundredths? Does $4 \times$ (anything) = 100? How about 4 quarters? Do 4 quarters make \$1.00? or 100 cents? (yes)

Since $4 \times 25 = 100$, let's figure out how many hundredths 3 fourths make.

$$\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = \boxed{0.75}$$

How do you write the decimal for 75 hundredths? (0.75)