

## Application Problems

### 2.7.1

There are 24 penguins sliding on the ice. There are 18 whales splashing in the ocean. How many more penguins than whales are there?

### 2.7.2

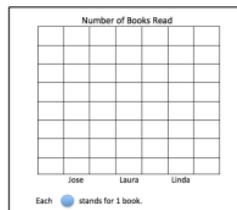
Gemma is counting animals in the park. She counts 16 robins, 19 ducks, and 17 squirrels. How many more robins and ducks did Gemma count than squirrels?

### 2.7.3

Materials: (T) Tally chart (S) Picture graph template

- a. Use the tally chart to fill in the picture graph.

Number of Books Read		
Jose	Laura	Linda



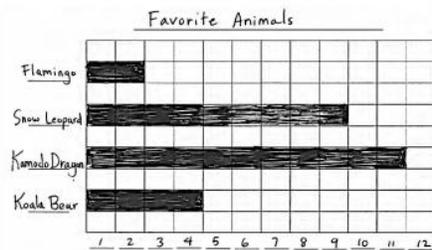
- b. Draw a tape diagram to show how many more books Jose read than Laura.  
 c. If Jose, Laura, and Linda read 21 books altogether, how many books did Linda read? Complete the tally chart and the graph to show the answer.

### 2.7.4

#### Application Problem (5 minutes)

After a trip to the zoo, Ms. Anderson's students voted on their favorite animals. Use the bar graph to answer the following questions.

- a. Which animal got the fewest votes?  
 b. Which animal got the most votes?  
 c. How many more students liked komodo dragons than koala bears?  
 d. Later, two students changed their votes from koala bear to snow leopard. What was the difference between koala bears and snow leopards then?



- a) Flamingo b) Komodo Dragon c) 7 more students liked Komodo Dragons more than Koala Bears. d) The Koala Bear bar would be shorter and the Snow Leopard bar would be longer.

### 2.7.5

Rita has 19 more pennies than Carlos. Rita has 27 pennies. How many pennies does Carlos have?

### 2.7.6

Sarah is saving money in her piggy bank. So far, she has 3 dimes, 1 quarter, and 8 pennies.

- a. How much money does Sarah have?  
 b. How much more does she need to have a dollar?

### 2.7.7

Danny has 2 dimes, 1 quarter, 3 nickels, and 5 pennies.

- a. What is the total value of Danny's coins?
- b. Show two different ways that Danny might add to find the total.

### **2.7.8**

Kiko's brother says that he will trade her 2 quarters, 4 dimes, and 2 nickels for a one dollar bill. Is this a fair trade? How do you know?

### **2.7.9**

Clark has 3 ten dollar bills and 6 five dollar bills. He has 2 more ten dollar bills and 2 more five dollar bills than Shannon. How much money does Shannon have?

### **2.7.10**

Andrew, Brett, and Jay all have 1 dollar in change in their pockets. They each have a different combination of coins. What coins might each boy have in his pocket?

### **2.7.11**

Tracy has 85 cents in her change purse. She has 4 coins. Which coins are they?  
How much more money will Tracy need if she wants to buy a bouncy ball for \$1?

### **2.7.12**

T: We can write 100 cents as \$1 in our number sentence.  
Richie has 24 cents. How much more money does he need to make \$1?

### **2.7.13**

Dante had some money in a jar. He puts 8 nickels into the jar. Now he has 100 cents. How much money was in the jar at first?

### **2.7.14**

Frances is moving the furniture in her bedroom. She wants to move the bookcase to the space between her bed and the wall, but she is not sure it will fit.  
Talk with your partner: What could Frances use as a measurement tool if she doesn't have a ruler? How could she use it? Show your thinking on your personal board using pictures, numbers, or words.

### **2.7.15**

Materials: (S) Small object approximately 6 inches long or less,  
9 lima beans, 3 toothpicks per pair  
Edwin and Tina have the same toy truck. Edwin says his is 4 toothpicks long. Tina says hers is 12 lima beans long. How can they both be right?  
Work with a partner to measure your object. Partner A, measure with lima beans. Partner B, measure with toothpicks. Use words or pictures to explain how Edwin and Tina can both be right.

### **2.7.16**

None

**2.7.17**

Benjamin measures his forearm and records the length as 15 inches. Then he measures his upper arm and realizes it's the same!

- a. How long is one of Benjamin's arms?
- b. What is the total length of both Benjamin's arms together?

**2.7.18**

Ezra is measuring things in his bedroom. He thinks his bed is about 2 yards. Is this a reasonable estimate? Explain your answer using pictures, words or numbers.

**2.7.19**

Katia is hanging decorative lights. The strand of lights is 46 feet long. The building wall is 84 feet long. How many more feet of lights does Katia need to buy to equal the length of the wall?

**2.7.20**

None

**2.7.21**

In order to ride the Mega Mountain rollercoaster, riders must be at least 44 inches tall. Caroline is 57 inches tall. She is 18 inches taller than Addison. How tall is Addison? How many more inches must Addison grow to ride the rollercoaster?

**2.7.22**

Liza, Cecilia, and Dylan are playing soccer. Liza and Cecilia are 120 feet apart. Dylan is in between them. If Dylan is standing the same distance from both girls, how many feet is Dylan from Liza?

**2.7.23**

None

**2.7.24**

Mike, Dennis, and April all collected coins from a parking lot. When they counted up their coins, they found they had 24 pennies, 15 nickels, 7 dimes, and 2 quarters. They put all the pennies into one cup and the other coins in another. Which cup had more coins? How many more?

**2.7.25**

These are the types and numbers of stamps in Shannon's stamp collection.

Type of Stamp	Number of Stamps
Holiday	16
Animal	8
Birthday	9
Famous singers	21

Her friend Michael gives her some flag stamps. If he gives her 7 fewer flag stamps than birthday and animal stamps together, how many flag stamps does she have?

If the flag stamps are worth 12 cents each, what is the total value of Shannon's flag stamps?

Note: This two-step problem involves interpreting and comparing data using a table. Encourage students to use the RDW process and to draw a picture to visualize the *fewer than* situation.

### 2.7.26

Judy bought an MP3 player and a set of earphones. The earphones cost \$9, which is \$48 less than the MP3 player. How much change should Judy get back if she gave the cashier a \$100 bill?