

Additional Practice 15-1 Numerical Patterns

Another Look!

Cara started with \$2. Her sister Chloe started with \$7. Both will earn \$2 each day for doing chores. How much will each have after five days? What relationship do you notice between how much each sister has after each day?

Step 1

Complete the table. Use the rule “add \$2” to help you.

Total Earnings		
Day	Cara	Chloe
Start	\$2	\$7
1	\$4	\$9
2	\$6	\$11
3	\$8	\$13
4	\$10	\$15
5	\$12	\$17

So, after five days, Cara has \$12 and Chloe has \$17.

Step 2

Look at each row to compare corresponding terms.

After each day, Chloe has \$5 more than Cara.



In 1 and 2, use the table.

- Becky and Anton work at an apple orchard. At noon, Becky had picked 75 apples and Anton had picked 63 apples. Each of them picks 20 more apples each hour after noon. How many apples will each of them have picked at 5 P.M.? Use the rule “add 20” to help you complete the table.
- Construct Arguments** What relationship do you notice between how many apples Becky has picked and how many apples Anton has picked at the end of each hour? Explain.

At the end of each hour, Becky always has picked 12 more apples than Anton. Becky had picked 12 more apples by noon, and they each pick the same number of apples each hour after noon.

Total Apples Picked		
	Becky	Anton
Noon	75	63
1 P.M.	95	83
2 P.M.	115	103
3 P.M.	135	123
4 P.M.	155	143
5 P.M.	175	163



3. Susie had received 9 text messages when she turned her phone on. She received 15 text messages each hour after that. Victor had received 27 text messages when he turned his phone on. He received 15 text messages each hour after that. How many messages did each person receive after 4 hours? Use the rule “add 15” to help you complete the table.

Total Text Messages Received		
Hour	Susie	Victor
Start	9	27
1	24	42
2	39	57
3	54	72
4	69	87

4. **Higher Order Thinking** What relationship do you notice between the total number of text messages each person had received after each hour? Explain.

Victor always has 18 more messages. He started with 18 more messages and received the same number each hour as Susie.

5. **Number Sense** Mr. Kim has a pitcher that contains 16 cups of juice. How many one-third cup servings are in 16 cups?

48

6. Pierre is using centimeter cubes to build a model. He makes a rectangular prism that is 20 cubes long, 8 cubes tall, and 12 cubes wide. What is the volume of Pierre’s model?

1,920 cubic centimeters



Assessment Practice

7. Brian and Christina started keeping track of their workouts. Brian did 85 sit-ups the first week and 90 sit-ups each week after that. Christina did 65 sit-ups the first week and 90 sit-ups each week after that.

How many sit-ups will each person have done after 5 weeks?

- (A) Brian: 425 sit-ups
Christina: 325 sit-ups
- (B) Brian: 450 sit-ups
Christina: 450 sit-ups
- (C) Brian: 425 sit-ups
Christina: 445 sit-ups
- (D) Brian: 445 sit-ups
Christina: 425 sit-ups

8. Which of the following are true statements about the relationship between the numbers of sit-ups Brian and Christina have done after each week?

- ☐ Christina has always done 20 more sit-ups than Brian.
- ☐ Brian has always done 25 more sit-ups than Christina.
- ☒ Christina has always done 20 fewer sit-ups than Brian.
- ☒ Brian has always done 20 more sit-ups than Christina.