Comparing Properties of Two Functions - Independent Practice Worksheet

Complete all the problems.

1. Compare the two linear functions listed below and determine which has a negative slope.

Function 1: Chocolate

Jacob has 50 chocolates. He gives 4 chocolates per week to his friend. Let y be the chocolate remaining as a function of the number of weeks, x.

x	0	1	2	3
y	50	46	42	38

Function 2: Cold drinks

Ava has 10 cold drinks at the start of the day. She purchases 2 cold drinks per day for the shop keeper. Write the rule for the total number of cold drink as a function of the number of the day (d). c = 10 + 2d

2. Compare the following functions to determine which has the greater rate of change.

Function 1: $y = 2x + 6$

Function 2: $y = 6x + 10$

3. Compare the two linear functions listed below and determine which has a negative slope

Function 1: Toys

William is a toy shop keeper. He has 30 toys at the start of the day. He sold 6 toys per day. Write the rule for the total number of toys as a function of the number of days (d). c = 30 - 6d

Function 2: Balloons

Denial has 20 balloons at the start of the day. He blows up 5 balloons per day. Write the rule for the total number of balloons as a function of the number of the days (d). c = 20 + 5d
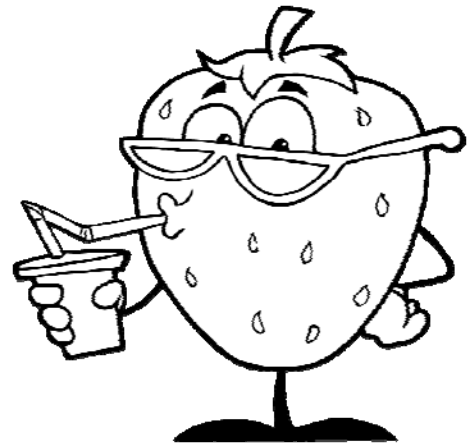
Name _____   Date _____

4. Compare the following functions to determine which has the greater rate of change.

Function 1: Apples

Abigail has 16 apples. She eats 2 apples per day. Let y be the apples remaining as a function of the number of day, x.

x	0	1	2	3
y	16	14	12	10

Function 2: Potatoes

Jayden has 12 potatoes. He buys 3 potatoes per week. Let y be the potato remaining as a function of the number of week, x.

x	0	1	2	3
y	12	15	18	21

5. Compare the two linear functions listed below and determine which has a negative slope.

Function 1: Pencil

Devin has $40. He purchases pencils for 3 weeks. Let y be the money remaining as a function of the number of weeks, x.

x	0	1	2	3
y	40	37	34	31

Function 2: Ball

Jimmy has 11 balls at the start of the day. He purchases 4 balls per day for the shop keeper. Write the rule for the total number of balls as a function of the number of the days (d). c = 11 + 4d

Name _____   Date _____

6. Compare the following functions to determine which has the greater rate of change.

Function 1: $y = 4x + 7$

Function 2: $y = 3x + 9$

7. Compare the following functions to determine which has the greater rate of change.

Function 1:   Books

Jeffery has $60. He buys books at the rate of $10 per day. Let y be the money remaining as a function of the number of day, x.

x	0	1	2	3
y	60	50	40	30

Function 2:   Flower

Jayden has 10 flowers. He buys 5 flowers per week. Let y be the flowers remaining as a function of the number of weeks, x.

x	0	1	2	3
y	10	15	20	25

8. Compare the two linear functions listed below and determine which has a negative slope

Function 1: Yogurt

Randall has $25. He buys yogurt for $5 per day. Write the rule for the total money spent as a function of the number of the days (d). $c = 25 - 5d$

Function 2: Star Fish

Anderson has 25 star fish. He purchases 5 star fishes per day. Write the rule for the total number of star fish as a function of the number of the days (d). $c = 25 + 5d$

Name _____   Date _____

9. Compare the two linear functions listed below and determine which has a negative slope

Function 1: Cap

Elvis has $20. He purchases caps for $4 per day. Write the rule for the total number of caps as a function of the number of the days (d). c = 20 - 4d

Function 2: Cookies

Roger has 20 cookies at the start of the day. He made 10 cookies per day. Write the rule for the total number of cookies as a function of the number of the day (d). c = 20 + 10d

10. Compare the following functions to determine which has the greater rate of change.

Function 1: $y = 7x + 4$

Function 2: $y = 2x + 8$