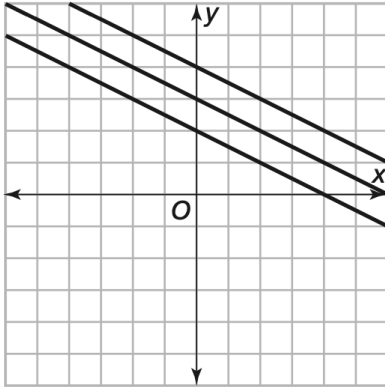


TWMM Investigation 2 Additional Practice - ANSWERS

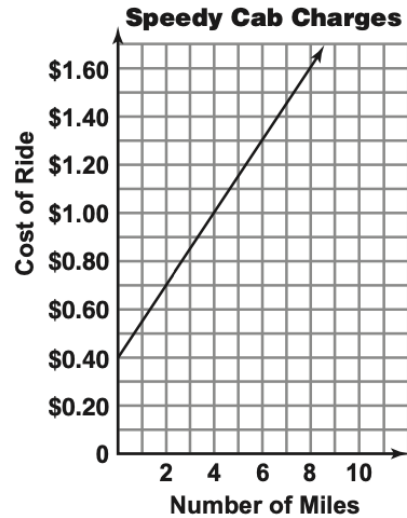
16. a. $y = -\frac{1}{2}x + 3$
 b. Possible answer: $y = -\frac{1}{2}x + 4$
 c. Possible answer: $y = -\frac{1}{2}x + 2$
 d. The coefficient of x (the slope) is always $-\frac{1}{2}$, while the y -intercept changes.



17. a. 16 cm
 b. Each additional cup adds 1 cm to the height of the stack.
 c. $y = x + 6$
 d. The coefficient of x is 1; this is the height of the “lip” of each cup. It has a complex unit of measure: 1 centimeter per cup. When this value is multiplied by the number of cups (that is, x), the result is $x + 6$ centimeters.
 e. The constant term is the height of one cup excluding the height of the lip. It has a unit of measure: 6 centimeters.

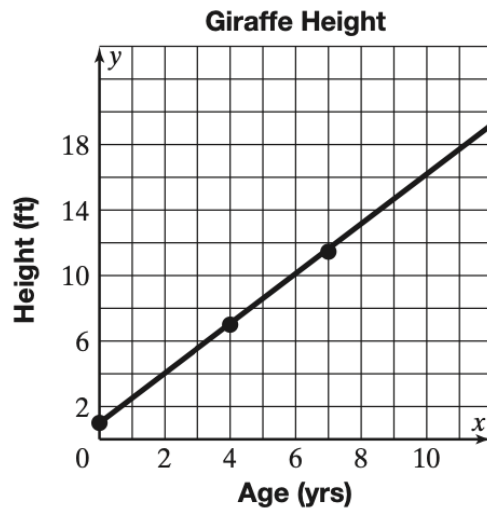
Skill: Using Linear Models

1. \$1,000 2. \$75 3. 4 4. \$50
 5. $y = 4x + 100$
 6. a. $y = 0.15x + 0.40$



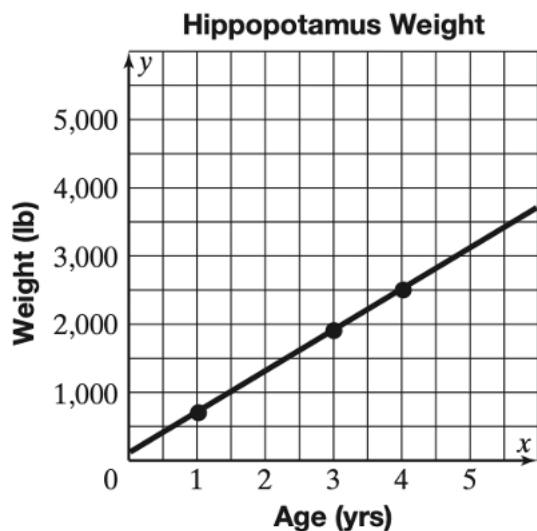
- b. 2 miles c. \$1.60

7–8.



9. $y = \frac{3}{2}x + 1$
 10. a. $8\frac{1}{2}$ feet b. 10 years

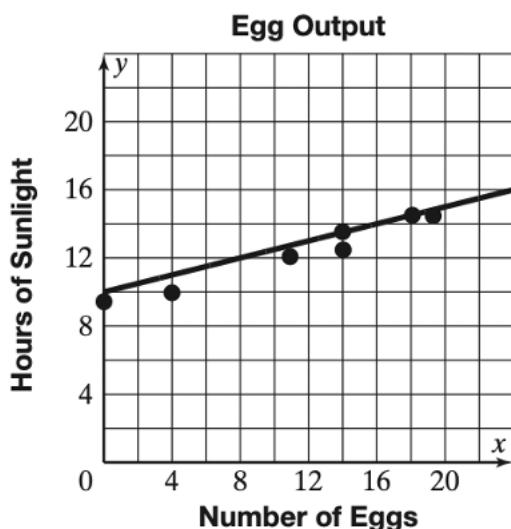
11–12.



13. $y = 600x + 100$

14. a. 3,700 pounds b. 7 years

15.



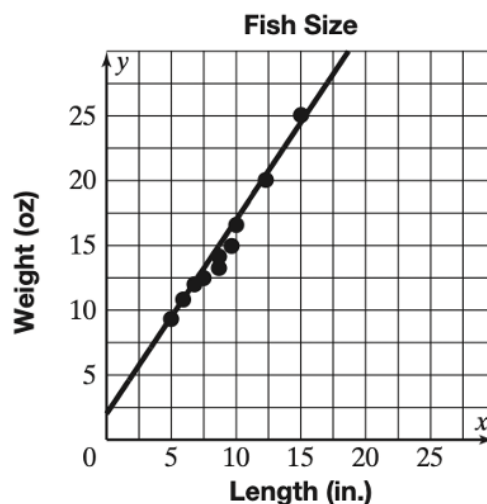
16. Sample answer: $s = 0.25n + 10$

17. a. Sample answer: 15

b. Sample answer: 24

18. Sample answer: The value of m tells me that to increase production by one egg per day, there must be another quarter hour of sunlight. The value of b tells me that there must be at least 10 hours of sunlight for the chickens to lay any eggs.

19.



20. Sample answer: $w = 1.5l + 2$

21. Sample answer: 8 oz

22. Sample answer: The weights of different species of fish might not increase at the same rate as their lengths increase.

Skill: Writing Equations of Lines

1. $y - 8 = x - 6$

2. $y - 3 = -1(x + 2)$

3. $y - 8 = 3(x - 3)$

4. $y - 3 = 4(x + 2)$

5. $y - 7 = \frac{3}{2}(x - 4)$

6. $y + 2 = -\frac{4}{3}(x - 6)$

7. $y - 2 = x + 3$

8. $y - 16 = -\frac{5}{2}(x - 6)$

In Slope-Intercept Form

1. $y = x + 2$

2. $y = -x + 1$

3. $y = 3x - 1$

4. $y = 4x + 11$

5. $y = \frac{3}{2}x + 1$

6. $y = -\frac{4}{3}x + 6$

7. $y = x + 5$

8. $y = -\frac{5}{2}x + 31$