Name _____ Date _____

Additional Exercises 2.2
Form I
The Multiplication Property of Equality

Solve the equation using the multiplication property of equality.

1. $\frac{1}{5}x = 4$ 1. _____

2. $-\frac{1}{3}x = 7$ 2. _____

3. $9x = 27$ 3. _____

4. $-5x = -40$ 4. _____

5. $-8x = 2$ 5. _____

6. $-x = 11$ 6. _____

7. $3x - x = 20$ 7. _____

8. $2x + 4 = 16$ 8. _____

9. $3x - 4 = 8$ 9. _____

10. $-15 = 3x + 3$ 10. _____

11. $4x = -2x + 42$ 11. _____

12. $6x + 9 = 4x - 5$ 12. _____

13. $8x + 1 = 6x + 1$ 13. _____

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14. $-2x+5=-4x+7$ 14. _____

15. $5x+8=x+4$ 15. _____

Solve the problem.

16. The time it takes to travel a given distance at constant speed is given by the formula $t=\frac{d}{r}$, where t is the time, d is the distance, and r is the rate of travel. At 30 miles per hour, what distance can be traveled in 5 hours? 16. _____

17. The time it takes to travel a given distance at constant speed is given by the formula $t=\frac{d}{r}$, where t is the time, d is the distance, and r is the rate of travel. At 0.7 mile per minute, what distance can be traveled in 20 minutes? 17. _____

18. To convert meters to feet, you can use the formula $f=\frac{m}{0.3038}$, where f is the distance in feet and m is the distance in meters. How many meters (to the nearest tenth) is 23 feet? 18. _____

19. Power is the time rate of doing work and is commonly measured in watts. Power is given by the formula $P=\frac{W}{t}$, where P is power, W is work (in joules), and t is time in seconds. If 500 watts of power are used in 12 seconds, how much work (in joules) was done? 19. _____

20. The speed of a ball dropped from a tower is given by the formula $f=32t$ where f is in feet per second and t is the number of seconds since the ball was dropped. Find the speed of the ball after 9 seconds. 20. _____

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Additional Exercises 2.2
Form II
The Multiplication Property of Equality

Solve the equation using the multiplication property of equality.

1. $\frac{1}{8}x = -3$ 1. _____

2. $-\frac{1}{11}x = 4$ 2. _____

3. $\frac{x}{2} = 11$ 3. _____

4. $-3a = 1$ 4. _____

5. $-6x = -30$ 5. _____

6. $\frac{2}{5}x = \frac{4}{25}$ 6. _____

7. $\frac{n}{4} = 9$ 7. _____

8. $\frac{3}{8}x = -\frac{6}{5}$ 8. _____

9. $-x = -15$ 9. _____

10. $5x - 1 = 7$ 10. _____

11. $7n - 4 = 66$ 11. _____

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12. $-12 = 5x - 8$ 12. _____

13. $5y + 7 = -4 + 3y$ 13. _____

14. $5x + 1 = -2x - 8$ 14. _____

15. $8x + 1 = 4x + 3$ 15. _____

Solve the problem.

16. The time it takes to travel a given distance at constant speed is given by the formula $t = \frac{d}{r}$, where *t* is the time, *d* is the distance, and *r* is the rate of travel. At 55 miles per hour, what distance can be traveled in 4.5 hours? 16. _____

17. The time it takes to travel a given distance at constant speed is given by the formula $t = \frac{d}{r}$, where *t* is the time, *d* is the distance, and *r* is the rate of travel. At 0.6 mile per minute, what distance can be traveled in 25 minutes? 17. _____

18. To convert meters to feet, you can use the formula $f = \frac{m}{0.3038}$, where *f* is the distance in feet and *m* is the distance in meters. How many meters (to the nearest tenth) is 26 feet? 18. _____

19. Power is the time rate of doing work and is commonly measured in watts. Power is given by the formula $P = \frac{W}{t}$, where *P* is power, *W* is work (in joules), and *t* is time in seconds. If 600 watts of power are used in 11 seconds, how much work (in joules) was done? 19. _____

20. The speed of a ball dropped from a tower is given by the formula $f = 32t$ where *f* is in feet per second and *t* is the number of seconds since the ball was dropped. Find the speed of the ball after 8 seconds. 20. _____

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Additional Exercises 2.2
Form III
The Multiplication Property of Equality

Solve the equation using the multiplication property of equality.

1. $\frac{1}{13}x = 7$ 1. _____

2. $-\frac{1}{23}a = 0$ 2. _____

3. $\frac{x}{4} = -8$ 3. _____

4. $-5a = 45$ 4. _____

5. $-8x = -50$ 5. _____

6. $\frac{2}{3}m = \frac{2}{5}$ 6. _____

7. $\frac{x}{7} = -5$ 7. _____

8. $-\frac{2}{9}k = -\frac{2}{3}$ 8. _____

9. $-12 = -x$ 9. _____

10. $4r + 2 = 22$ 10. _____

11. $8x - 5 = 61$ 11. _____

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12. $-21 = 5x - 6$ 12. _____

13. $2x + 9 = -3 + 5x$ 13. _____

14. $7x + 3 = -3x - 7$ 14. _____

15. $9x - 7 = 4x + 9$ 15. _____

Solve the problem.

16. The time it takes to travel a given distance at constant speed is given by the formula $t = \frac{d}{r}$, where t is the time, d is the distance, and r is the rate of travel. At 70 miles per hour, what distance can be traveled in 6 ¼ hours? 16. _____

17. The time it takes to travel a given distance at constant speed is given by the formula $t = \frac{d}{r}$, where t is the time, d is the distance, and r is the rate of travel. At 0.7 mile per minute, what distance can be traveled in 32 minutes? 17. _____

18. To convert meters to feet, you can use the formula $f = \frac{m}{0.3038}$, where f is the distance in feet and m is the distance in meters. How many meters (to the nearest tenth) is 27 feet? 18. _____

19. Power is the time rate of doing work and is commonly measured in watts. Power is given by the formula $P = \frac{W}{t}$, where P is power, W is work (in joules), and t is time in seconds. If 550 watts of power are used in 15 seconds, how much work (in joules) was done? 19. _____

20. The speed of a ball dropped from a tower is given by the formula $f = 32t$ where f is in feet per second and t is the number of seconds since the ball was dropped. Find the speed of the ball after 12 seconds. 20. _____