

1. d

2. b

3. a

4. b

5.

6.

7.

8. Dimensions: 75 ft by 150 ft

9. Question: $(4x^2 + 16x - 9) \div (x + 5)$ Solution: $4x - 4 + \frac{11}{x + 5}$

10. Received 10.63 inches of rain, 12% less rain than normal. Normal is 12.08 inches.

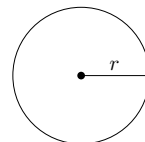
11. Formula $s = \sqrt{24 \cdot d}$. Deer is 80 feet away.

(a) If speed is 35 miles per hour, she will skid 51.042 feet.

(b) She will not hit the deer.

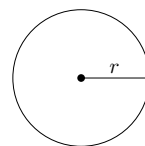
12.
$$\begin{cases} 3x - 5y = 17 \\ 4x + y = 15 \end{cases} ; \text{solution } (4, -1)$$

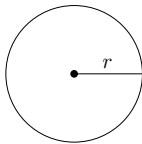
13. (a) 5

(b) Domain: $[-4, 4]$ (c) Range: $[-3, 5]$ 14. 16π 

1. b
2. a
3. g
4. b
- 5.
- 6.
- 7.
8. Dimensions: 68 ft by 136 ft
9. Question: $(4x^2 + 17x - 31) \div (x + 6)$
Solution: $4x - 7 + \frac{11}{x + 6}$
10. Paid \$1393.83 for a desk that was 15% off. Original cost was \$1639.80.

11. Formula $s = \sqrt{27 \cdot d}$. Deer is 65 feet away.
 - (a) If speed is 30 miles per hour, she will skid 33.333 feet.
 - (b) She will not hit the deer.
12. $\begin{cases} x + 4y = -11 \\ -5x + 5y = 5 \end{cases}$; solution $(-3, -2)$
13. (a) -5
(b) Domain: $[-8, 0]$
(c) Range: $[-9, -1]$
14. 9π



1. e
2. a
3. j
4. c
5. (a) First solution.
(b) Second solution.
- 6.
- 7.
8. Largest area: 7442 ft^2
9. Question: $(2x^2 + 5x + 1) \div (x + 4)$
Solution: $2x - 3 + \frac{13}{x + 4}$
10. Paid \$1125.60 for a desk that was 17% off. Original cost was \$1356.14.
11. Formula $s = \sqrt{24 \cdot d}$. Deer is 80 feet away.
 - (a) If speed is 35 miles per hour, she will skid 51.042 feet.
 - (b) She will not hit the deer.
12. $\begin{cases} 2x + 4y = 8 \\ x + 5y = 16 \end{cases}$; solution $(-4, 4)$
13. (a) -1
(b) Domain: $[-2, 6]$
(c) Range: $[-5, 3]$
14. 25π


1. a

2. b

3. j

4. a

5.

6.

7.

8. Largest area: 8450 ft^2 9. Question: $(2x^2 + 2x - 13) \div (x + 4)$ Solution: $2x - 6 + \frac{11}{x + 4}$

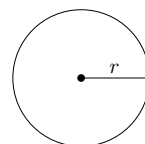
10. Paid \$1443.14 for a desk that was 18% off. Original cost was \$1759.93.

11. Formula $s = \sqrt{30 \cdot d}$. Deer is 60 feet away.

(a) If speed is 35 miles per hour, she will skid 40.833 feet.

(b) She will not hit the deer.

12.
$$\begin{cases} 3x + y = 7 \\ -4x - 5y = -24 \end{cases} ; \text{solution } (1, 4)$$

13. (a) -1 (b) Domain: $[-8, 0]$ (c) Range: $[-7, 1]$ 14. 4π 

1. a

2. a

3. c

4. d

5.

6.

7.

8. Largest area: 13448 ft^2 9. Question: $(4x^2 + 10x - 14) \div (x + 4)$ Solution: $4x - 6 + \frac{10}{x + 4}$

10. Paid \$1239.31 for a desk that was 14% off. Original cost was \$1441.06.

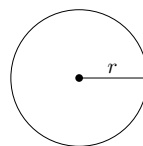
11. Formula $s = \sqrt{21 \cdot d}$. Deer is 55 feet away.

(a) If speed is 45 miles per hour, she will skid 96.429 feet.

(b) She will hit the deer.

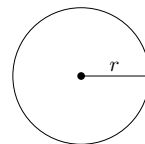
12.
$$\begin{cases} x - 4y = 4 \\ -4x + 5y = -16 \end{cases} ; \text{solution } (4, 0)$$

13. (a) 5

(b) Domain: $[-2, 6]$ (c) Range: $[-1, 7]$ 14. 9π 

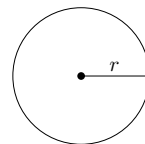
1. i
2. e
3. a
4. d
5. Solution content.
- 6.
- 7.
8. Largest area: 15488 ft^2
9. Question: $(3x^2 + 13x - 18) \div (x + 6)$
Solution: $3x - 5 + \frac{12}{x + 6}$
10. Desk marked up 16% to \$1581.93. Was originally \$1363.73.

11. Formula $s = \sqrt{27 \cdot d}$. Deer is 60 feet away.
 - (a) If speed is 45 miles per hour, she will skid 75.0 feet.
 - (b) She will hit the deer.
12. $\begin{cases} x - 4y = 4 \\ -4x + 3y = -16 \end{cases}$; solution $(4, 0)$
13.
 - (a) 9
 - (b) Domain: $[-8, 0]$
 - (c) Range: $[1, 9]$
14. 9π



1. i
2. c
3. c
4. d
- 5.
- 6.
- 7.
8. Largest area: 8192 ft^2
9. Question: $(3x^2 + 11x - 30) \div (x + 6)$
Solution: $3x - 7 + \frac{12}{x + 6}$
10. Paid \$1886.56 for a desk that was 17% off. Original cost was \$2272.96.

11. Formula $s = \sqrt{27 \cdot d}$. Deer is 80 feet away.
 - (a) If speed is 35 miles per hour, she will skid 45.37 feet.
 - (b) She will not hit the deer.
12.
$$\begin{cases} -3x - 5y = -40 \\ -5x + y = -20 \end{cases} ; \text{ solution } (5, 5)$$
13.
 - (a) 7
 - (b) Domain: $[-4, 4]$
 - (c) Range: $[-1, 7]$
14. 25π



1. i

2. a

3. b

4. c

5.

6.

7.

8. Dimensions: 53 ft by 106 ft

9. Question: $(3x^2 + 13x - 42) \div (x + 7)$ Solution: $3x - 8 + \frac{14}{x + 7}$

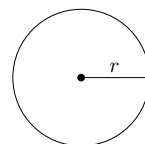
10. Received 9.75 inches of rain, 13% less rain than normal. Normal is 11.21 inches.

11. Formula $s = \sqrt{24 \cdot d}$. Deer is 75 feet away.

(a) If speed is 30 miles per hour, she will skid 37.5 feet.

(b) She will not hit the deer.

12.
$$\begin{cases} 3x + 5y = -37 \\ x - 3y = 11 \end{cases} ; \text{solution } (-4, -5)$$

13. (a) -7 (b) Domain: $[-8, 0]$ (c) Range: $[-9, -1]$ 14. 16π 

1. j

2. a

3. b

4. c

5. (a) First solution.

(b) Second solution.

6.

7.

8. Dimensions: 52 ft by 104 ft

9. Question: $(3x^2 + 7x - 8) \div (x + 4)$ Solution: $3x - 5 + \frac{12}{x + 4}$

10. Desk marked up 14% to \$1302.78. Was originally \$1142.79.

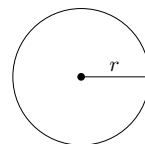
11. Formula $s = \sqrt{21 \cdot d}$. Deer is 60 feet away.

(a) If speed is 25 miles per hour, she will skid 29.762 feet.

(b) She will not hit the deer.

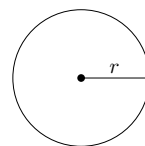
12.
$$\begin{cases} x + 5y = -1 \\ -4x - 3y = 4 \end{cases} ; \text{solution } (-1, 0)$$

13. (a) 5

(b) Domain: $[-2, 6]$ (c) Range: $[-1, 7]$ 14. 25π 

1. a
2. a
3. c
4. a
- 5.
- 6.
- 7.
8. Largest area: 14792 ft^2
9. Question: $(3x^2 + 7x - 29) \div (x + 5)$
Solution: $3x - 8 + \frac{11}{x + 5}$
10. Desk marked up 15% to \$1474.49. Was originally \$1282.17.

11. Formula $s = \sqrt{24 \cdot d}$. Deer is 70 feet away.
 - (a) If speed is 35 miles per hour, she will skid 51.042 feet.
 - (b) She will not hit the deer.
12.
$$\begin{cases} -2x + 4y = 2 \\ -4x + y = -10 \end{cases} ; \text{solution } (3, 2)$$
13.
 - (a) -5
 - (b) Domain: $[-2, 6]$
 - (c) Range: $[-7, 1]$
14. 25π



1. a

2. d

3. e

4. a

5.

6.

7.

8. Dimensions: 84 ft by 168 ft

9. Question: $(2x^2 + 3x - 27) \div (x + 5)$ Solution: $2x - 7 + \frac{8}{x + 5}$

10. Paid \$1614.90 for a desk that was 12% off. Original cost was \$1835.11.

11. Formula $s = \sqrt{24 \cdot d}$. Deer is 65 feet away.

(a) If speed is 35 miles per hour, she will skid 51.042 feet.

(b) She will not hit the deer.

12.
$$\begin{cases} x + 4y = 13 \\ 4x + 3y = 26 \end{cases} ; \text{solution } (5, 2)$$

13. (a) -1 (b) Domain: $[-2, 6]$ (c) Range: $[-5, 3]$ 14. 16π 