

Entering Algebra-8 Summer Work Answers

1. $r = -2.4$ 2. $c = -2.5$ 3. 145 min

4. a. $A = \frac{1}{2}bh$; $h = \frac{2A}{b}$ b. 6.4 in.; 16.256 cm

5. FG 6. 60°

7. $A(1, 0)$, $B(0, -1)$, $C(4, -3)$

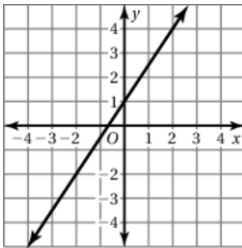
8. $x = 4.5$, $y = 1$; ratio of perimeters, 3 : 1;
ratio of areas, 9 : 1

9. yes; ratio, 3 : 2, or 1.5 : 1

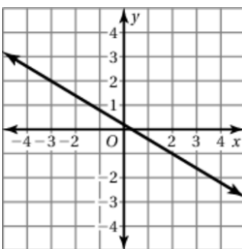
10. 118° 11. 144°

12. 4; Measure 2 in each triangle. The third angle of each triangle can be found by subtracting the sum of the measures of the first two angles from 180° .

13. slope: 1.5; y-intercept: 1



14. slope: $-\frac{3}{5}$; y-intercept: $\frac{1}{5}$



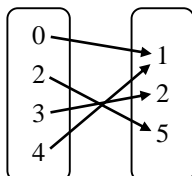
15. x-intercept: 6; y-intercept: 14; 6 adults can attend the play for \$21 or 14 children can attend the play for \$21.

16. $y = -3x + 2$ 17. $y = -2x + 7$

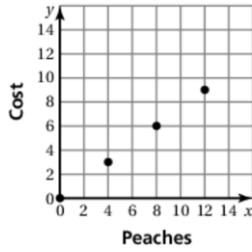
18. $x = 32$ 19. $\left(-\frac{3}{2}, -\frac{1}{4}\right)$ 20. no solution

21. $\left(3, -\frac{1}{2}\right)$ 22. 26 text messages

23. Input, x Output, y



24. a.



b. $y = 0.75x$ c. \$4.50

25. linear

26. nonlinear

27. $972\pi \approx 3053.6 \text{ in.}^3$ 28. $120\pi \approx 377.0 \text{ mm}^3$

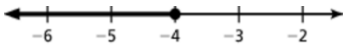
29. $972\pi \approx 3053.6 \text{ cm}^3$

30. $t - 3.2 \leq 7.5$

31. $\frac{4}{7}m > \frac{12}{5}$

32. $\frac{x}{4} < 12; x < \$48$

33. $k \leq -4;$



34. $v < 2;$



35. $12.5x + 5 \geq 50; x \geq 3.6;$ at least 4 CDs

36. complementary

37. neither

38. right isosceles

39. acute scalene

40. 74

41. 68

42. 1 : 2

43. $28\pi \approx 88 \text{ in.}; 196\pi \approx 615 \text{ in.}^2$

44. $75 + \frac{25}{4}\pi \approx 94.625 \text{ ft}^2$

45. volume = 243.75 cm^3 ; surface area = 237.5 cm^2

46. volume = 64 ft^3 ; surface area = 144 ft^2

47. surface area = 106.76 in.^2

48. a. *Sample answer:* 2 ft × 4 ft × 9 ft,
3 ft × 6 ft × 4 ft, 4 ft × 3 ft × 6 ft

b. Check students' work. The design with the lesser surface area will be cheaper to produce because less wood is needed.

49. 98 students

50. $\frac{2}{9}$ or about 22%

51. $\frac{1}{36}$, or about 3%

52. $\frac{1}{4}$ or 25%

53. 20 tickets