

**Summer Math****Evaluate each expression.**

1)  $6 - \frac{7}{8}$

2)  $\frac{2}{3} + \frac{3}{2}$

3)  $7\frac{1}{2} + \left(-2\frac{4}{7}\right)$

4)  $2 - 1\frac{1}{5}$

**Find each product.**

5)  $-8 \times \frac{1}{2}$

6)  $-\frac{2}{3} \times -\frac{3}{2}$

7)  $-1\frac{2}{3} \times \frac{1}{5}$

8)  $-1\frac{2}{3} \times -\frac{3}{2}$

**Find each quotient.**

9)  $1 \div \frac{2}{3}$

10)  $\frac{7}{8} \div \frac{1}{2}$

11)  $-3\frac{2}{3} \div -2$

12)  $4\frac{1}{5} \div -1\frac{1}{9}$

**Simplify each expression.**

13)  $x + 5 - 5$

14)  $-5a - 6a$

15)  $-(x - 3)$

16)  $4(2k - 2)$

17)  $-10(-2n + 2) + n$

18)  $-6p + 3(6 + 2p)$

**Evaluate each using the values given.**

19)  $m(m - n)$ ; use  $m = 3$ , and  $n = 1$

20)  $5 - p + q$ ; use  $p = 5$ , and  $q = 3$

21)  $x^2 + y \div 3$ ; use  $x = 3$ , and  $y = 3$

22)  $x(y - y) + y$ ; use  $x = 4$ , and  $y = 6$

**Solve each equation.**

23)  $-6 + \frac{p}{6} = -7$

24)  $5k - 5 = 15$

25)  $\frac{5}{3}r - \frac{3}{2} = -3\frac{1}{6}$

26)  $-2p - 7p = 0$

27)  $-8 = 7x - 6x$

28)  $8 + 6n = -7n + 5n - 16$

29)  $-5 - 7x = 1 - 6x$

30)  $-4(8 - 2n) + 3 = -93$

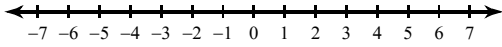
31)  $126 = 3(2 + 8n)$

32)  $3(7x - 7) - 4x = 24 + 2x$

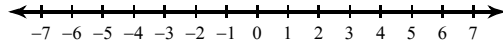
33)  $-3(8x + 6) = -6x$

Draw a graph for each inequality.

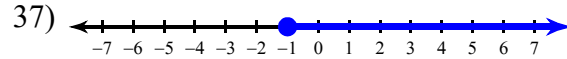
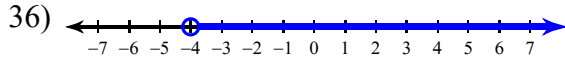
34)  $x \geq -4$



35)  $b \leq -1$

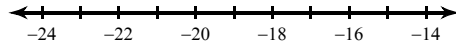


Write an inequality for each graph.

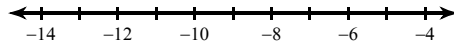


Solve each inequality and graph its solution.

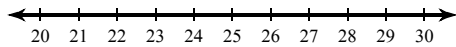
38)  $n - 8 \leq -26$



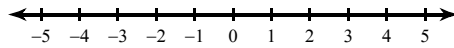
39)  $n - 10 < -22$



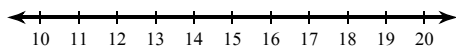
40)  $11 \leq \frac{x}{2}$



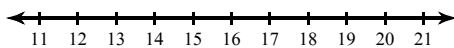
41)  $-20p \geq 0$



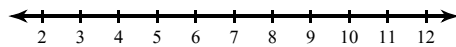
42)  $\frac{1+x}{18} \geq 1$



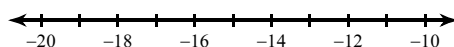
43)  $14 < 9 + \frac{x}{3}$



44)  $13 \geq -7 + 5x$



45)  $-9 + \frac{r}{4} < -13$



**Simplify. Your answer should contain only positive exponents.**

46)  $5^4 \cdot 5^2$

47)  $6 \cdot 6^4$

48)  $3 \cdot 3^4$

49)  $3^3 \cdot 3^4$

**Find each square root.**

50)  $\sqrt{25}$

51)  $\sqrt{121}$

52)  $\sqrt{4}$

53)  $\sqrt{81}$

**Find each square root. Round to the nearest whole number.**

54)  $\sqrt{64}$

55)  $\sqrt{78}$

**Find each square root.**

56)  $\sqrt{\frac{144}{4}}$

57)  $\sqrt{\frac{9}{100}}$

**State if each pair of ratios forms a proportion.**

58)  $\frac{4}{2}$  and  $\frac{16}{12}$

59)  $\frac{2}{4}$  and  $\frac{4}{8}$

**Solve each proportion.**

60)  $\frac{x}{6} = \frac{10}{3}$

61)  $\frac{4}{k} = \frac{10}{2}$

**Answer each question and round your answer to the nearest whole number.**

62) If you can buy one cantaloupe for \$2, then how many can you buy with \$16?

63) Amy bought one bunch of fennel for \$2. How many bunches can Ashley buy if she has \$8?

**Write each as a decimal. Round to the thousandths place.**

64) 17%

65) 18.3%

**Write each as a fraction.**

66) 87.5%

67) 44.8%

**Find the selling price of each item.**

68) Original price of concert tickets: \$99.95  
Discount: 20%

69) Original price of concert tickets: \$99.95  
Discount: 30%  
Tax: 6%

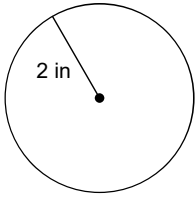
**Solve each problem.**

70) 159 is 35% of what?

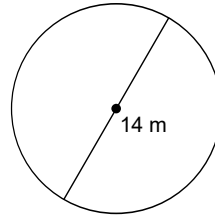
71) 18 is 89% of what?

Find the area of each. Round your answer to the nearest tenth.

72)

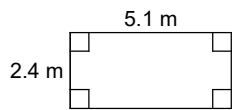


73)

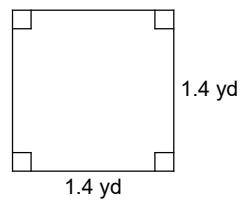


Find the area of each.

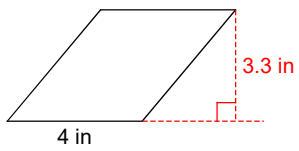
74)



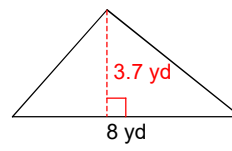
75)



76)

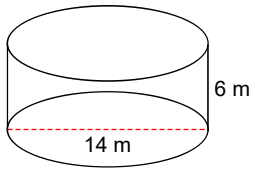


77)

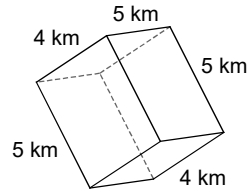


Find the volume of each figure. Round to the nearest tenth.

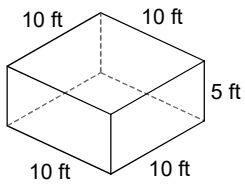
78)



79)



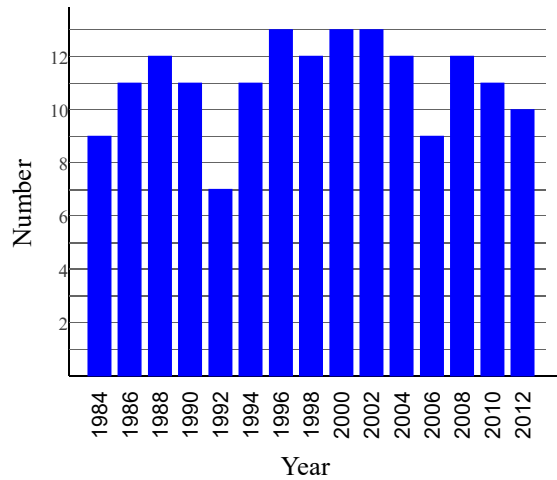
80)



Find the mode, median, mean, and range for each data set.

81)

Nobel Laureates



## Answers to Summer Math

1)  $5\frac{1}{8}$

2)  $2\frac{1}{6}$

3)  $4\frac{13}{14}$

4)  $\frac{4}{5}$

5)  $-4$

6)  $1$

7)  $-\frac{1}{3}$

8)  $2\frac{1}{2}$

9)  $1\frac{1}{2}$

10)  $1\frac{3}{4}$

11)  $1\frac{5}{6}$

12)  $-3\frac{39}{50}$

13)  $x$

14)  $-11a$

15)  $-x + 3$

16)  $8k - 8$

17)  $21n - 20$

18)  $18$

19)  $6$

20)  $3$

21)  $10$

22)  $6$

23)  $\{-6\}$

24)  $\{4\}$

25)  $\{-1\}$

26)  $\{0\}$

27)  $\{-8\}$

28)  $\{-3\}$

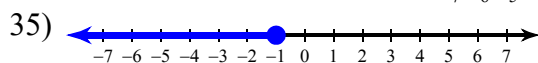
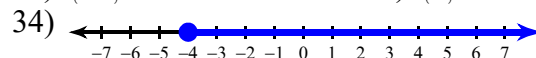
29)  $\{-6\}$

30)  $\{-8\}$

31)  $\{5\}$

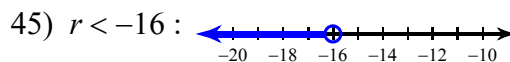
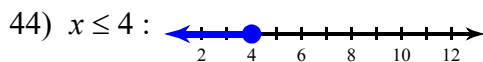
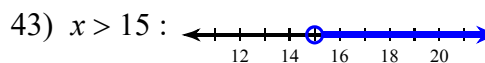
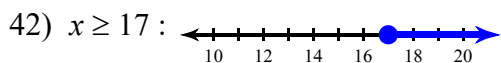
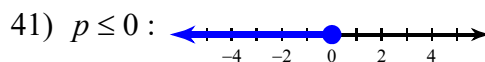
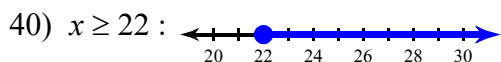
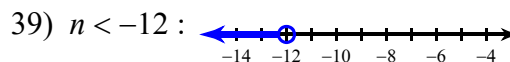
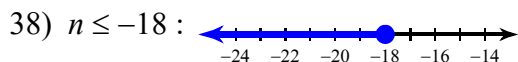
32)  $\{3\}$

33)  $\{-1\}$



36)  $r > -4$

37)  $r \geq -1$



46)  $5^6$

47)  $6^5$

48)  $3^5$

49)  $3^7$

50)  $5$

51)  $11$

52)  $2$

53)  $9$

54)  $8$

55)  $9$

56)  $6$

57)  $\frac{3}{10}$

58) No

59) Yes

60)  $\{20\}$

61)  $\{0.8\}$

62)  $8$

63)  $4$

64)  $0.17$

65)  $0.183$

66)  $\frac{7}{8}$

67)  $\frac{56}{125}$

68)  $\$79.96$

69)  $\$74.16$

70)  $454.3$

71)  $20.2$

72)  $12.6 \text{ in}^2$

73)  $153.9 \text{ m}^2$

74)  $12.24 \text{ m}^2$

75)  $1.96 \text{ yd}^2$

76)  $13.2 \text{ in}^2$

77)  $14.8 \text{ yd}^2$

78)  $923.6 \text{ m}^3$

79)  $100 \text{ km}^3$

80)  $500 \text{ ft}^3$

81) Mode = 11 and 12, Median = 11,  
Mean = 11.07 and Range = 6