

Chapter 1 Review

Accelerated 7th Grade Math (6)

Name: _____

1) Evaluate

a. $-12 + 20$

b. $10 - -4$

c. $-40 + -23$

d. $-5 - -15$

e. $-8 - 6$

f. $-5 \bullet -11$

g. $9 \div (-3)^2$

h. $-40 \div -2$

i. $-3^2 - 22$

j. $-32 + 11$

k. $21 - 40$

l. $-a + 4$
if $a = 7$

m. $-8 - a$
if $a = -8$

n. $10 - a$
if $a = -12$

o. $-a + -6$
if $a = -11$

p. $-4 - a$
if $a = |4|$

q. $-10 \bullet a$
if $a = |-5|$

r. $-3 \bullet a$
if $a = -|3|$

s. a^2
if $a = -12$

t. $-16 \div a$
if $a = -2$

u. $-a + b$
if $a = 4, b = 4$

v. $a - b$
if $a = -|-4|, b = 4$

w. $-4 + 3 - 6 + 1 + 4$

x. $(-5)^2$

2) Compute each of the following...

a. $4\frac{1}{2} - 3\frac{6}{7}$

b. $-4\frac{1}{2} \cdot 3\frac{2}{3}$

c. $-4\frac{1}{2} \div -3\frac{6}{7}$

d. $\frac{4}{5} - 1\frac{2}{3}$

e. $-1\frac{1}{3} + 3\frac{3}{4}$

f. $5 \div 3\frac{4}{7}$

3) Every day during the summer, Ely spends $\frac{3}{4}$ of an hour playing soccer, $1\frac{1}{2}$ hours dancing, and 7 hours making funny faces to people in cars at stop lights. What is the total number of hours that Ely does these 3 activities each day?

4) Ethan wanted to kick his soccer ball $\frac{3}{4}$ of the way across the field. On his first try, he kicked it $\frac{7}{16}$ of the way. How much further did he have to go to reach his goal?

5) Mr Moundros has $\frac{7}{8}$ of a pizza left, how many $\frac{1}{16}$ can he cut from what he has?

6) Fill in the table below...

Fraction	Decimal	Percent
$\frac{3}{5}$		
	0.07	
		54%
$\frac{2}{3}$		
		9%
	0.649	
		500%

Evaluate

7. $\sqrt{81}$

8. $\sqrt{-36}$

9. $\sqrt[3]{1}$

10. $\sqrt[3]{8}$

11. $-\sqrt{16}$

12. $\sqrt{121}$

13. $\sqrt[3]{-27}$

14. $\sqrt[3]{216}$

15. $-\sqrt{100}$

16. $\sqrt{9}$

17. $\sqrt[3]{27}$

18. $-\sqrt{225}$

19. $\sqrt{-4}$

20. $\sqrt{-81}$

21. $-\sqrt[3]{-27}$

22. $\sqrt[3]{125}$

23. $\sqrt{441}$

24. $\sqrt{\frac{4}{16}}$

25. $\pm\sqrt{\frac{64}{121}}$

26. $-\sqrt{\frac{16}{81}}$

27. $\sqrt{5(4+2) - 10 \div 5 + 7 \cdot 3}$

28. $\sqrt{9 \cdot 6 + 10 \div 5 + 4 \cdot 2}$

Estimate each to the nearest tenths place.

29. $\sqrt{10}$

30. $\sqrt{3}$

31. $\sqrt{110}$

32. $\sqrt{72}$

Order the following from least to greatest.

33. $\sqrt{2}, 1.5, 1, 3, \pi, \sqrt{8}, 2$

34. $4.5, \sqrt{9}, \sqrt{6}, 3.1, \pi, \sqrt{18}, 4$

For each of the following state, "rational" or "irrational" and explain why.

35. π

36. $\sqrt{100}$

37. $\sqrt{18}$

38. 19.8

39. 19

40. -38.9

41. 19.168423...

42. 8.16161616...

43. 9.25845962...

Write each of the following numbers in scientific notation.

44. 9,260,000,000,000

45. 0.000000528

46. 0.00061

47. $8.7E-9$

48. $9.24E8$

49. 65,000

Write each of the following numbers in standard notation.

50. 7.1×10^9

51. 1.75×10^{-3}

52. 4.813×10^{-7}

53. 6.8×10^{-3}

54. 9.432×10^3

55. 3.1×10^{13}

Write each answer using scientific notation.

56. $3.2 \times 10^5 + 1.5 \times 10^6$

57. $8.4 \times 10^{10} - 5.4 \times 10^3$

58. $6.3 \times 10^6 \div 2.1 \times 10^3$

59. $7 \times 10^9 \bullet 4 \times 10^3$

60. Find the mean, median, mode, and range for the following test scores:

93, 88, 93, 94, 83, 86, 84, 99

61. What is the best measure of central tendency for the list of values show above? WHY?

Answers:

- 1) a. 8 b. 14 c. -63 d. 10 e. -14 f. 55 g. 1 h. 20 i. -31 j. -21 k. -19 l. -3
m. 0 n. 22 o. 5 p. -8 q. -50 r. 9 s. 144 t. 8 u. 0 v. -8 w. -2 x. 25
- 2) a. $9/14$ b. $-16\frac{1}{2}$ c. $1\frac{1}{6}$ d. $-13/15$ e. $2\frac{5}{12}$ f. $1\frac{2}{5}$
- 3) $9\frac{1}{4}$
4) $5/16$
5) 14
6) 0.6, 60%
 $7/100$, 7%
 $27/50$, 0.54
0.666..., 66.666...%
 $9/100$, 0.09
 $649/1000$, 64.9%
5, 5.0
- 7) 9
8) NS
9) 1
10) 2
11) -4
12) 11
13) -3
14) 6
15) -10
16) 3
17) 3
18) -15
19) NS
20) NS
21) 3
22) 5
23) 21
24) $\frac{1}{2}$
25) $8/11$, $-8/11$
26) $-4/9$
27) 7
28) 8
29) $\sim 3.1-3.2$
- 30) $\sim 1.6-1.9$
31) $\sim 10.4-10.5$
32) $\sim 8.4-8.5$
33) 1, SR2, 1.5, 2, SR8, 3, pi
34) SR6, SR9, 3.1, pi, 4, SR18, 4.5
35) I
36) R (ends)
37) I
38) R (ends)
39) R (ends)
40) R (ends)
41) I
42) R (repeats)
43) I
44) 9.26×10^{12}
45) 5.28×10^{-7}
46) 6.1×10^{-4}
47) 8.7×10^{-9}
48) 9.24×10^8
49) 6.5×10^4
50) 7,100,000,000
51) 0.00175
52) 0.0000004813
53) 0.0068
54) 9432
55) 31,000,000,000,000
56) 1.82×10^6
57) 8.4×10^{10}
58) 3×10^3
59) 28×10^{12} OR 2.8×10^{13}
60) 90, 90.5, 93, 16
61) Mean - no outlier