

1.4 Operations with Signed Numbers

Name _____

Perform the indicated addition or subtraction.	
1. $5 + 9$	2. $5 + (-9)$
3. $-5 + 9$	4. $-5 + (-9)$
5. $3 - 10$	6. $3 - (-10)$
7. $10 - (-3)$	8. $-10 - (-3)$
Perform the indicated multiplication or division.	
9. $4(7)$	10. $4(-7)$
11. $-4(7)$	12. $-4(-7)$
13. $40 \div (-8)$	14. $-40 \div (-8)$
Perform the indicated operation.	
15. $7 + (-3)$	16. $-5 \cdot 8$
17. $-63 \div 3$	18. $7 - (-12)$
19. $-\frac{72}{8}$	20. $\frac{16}{-8}$
Answers: 1. 14; 3. 4; 5. -7; 7. 13; 9. 28; 11. -28; 13. -5; 15. 4; 17. -21; 19. -9	

Perform the indicated operation. Show work steps.	
21. $-\frac{3}{4} \cdot \frac{6}{7}$	22. $\frac{5}{6} \div \frac{9}{13}$
23. $-\frac{1}{4} - \frac{3}{8}$	24. $\frac{1}{4} + \left(-\frac{7}{8}\right)$
25. $(0.25)(-1.3)$	26. $-16.4 - (-4.8)$
27. $-1.9 \div (-0.25)$	28. $-1.45 + (-0.35)$
29. $\frac{-5.4}{0}$	30. $\frac{0}{-5.4}$
Evaluate each exponential expression.	
31. $(-5)^2$	32. $(-4)^3$
33. -5^2	34. -3^4
35. $-\left(\frac{2}{3}\right)^4$	36. $\left(-\frac{2}{3}\right)^4$
Answers: 21. $-\frac{9}{14}$; 23. $-\frac{5}{8}$; 25. -0.325 ; 27. 7.6 ; 29. undefined; 31. 25 ; 33. -25 ; 35. $-\frac{16}{81}$	

Complete the following statements with one of	
<p>a) is positive b) is negative c) depends on the magnitude (absolute value) of the numbers</p>	
37. The sum of two negative numbers _____	38. The product of two negative numbers _____
39. The difference of two positive numbers _____	40. The product of two numbers with opposite signs _____
41. A negative number raised to an even power _____	42. A negative number raised to an odd power _____
Evaluate each expression, using the Order of Operations.	
43. $-35 \div (-3 + 8)$	44. $-30 \div 6(-5)$
45. $-3\sqrt{36} + (2 - 5 \cdot 4)$	46. $-4(3 - 5) - 5\sqrt{16}$
47. $\frac{ 3 - 9 - 17 - 2 }{-2 4 - 10 }$	48. $\frac{1.79 - (2.3)^2}{ 0.2 - 0.9 }$
Answers: 37. b; 39. c; 41. a; 43. -7; 45. -36; 47. $\frac{3}{4}$	

Evaluate each expression for $x = 2$, $y = -3$, $z = -5$.

49. $3x^2 - 5x$

50. $-4x + 3y$

51. $\frac{6y-3}{x-z}$

52. $\frac{x+y}{y-x}$

53. $-y^2 - x^2$

54. $-x^2 + 3z$

Answers: 49. 2; 51. -3; 53. -13