Name: _____

Arithmetic Operations with Rational Numbers

Find each quotient.

27) $\frac{-30}{-5}$

28) $\frac{30}{-6}$

29) $\frac{-40}{8}$

30) $\frac{-36}{-9}$

31) $-49 \div 7$

32) $-65 \div (-13)$

33) $\frac{\frac{1}{2}}{\frac{1}{4}}$

34) $\frac{-\frac{1}{2}}{-7}$

35) $\frac{-10}{\frac{2}{3}}$

36) $\frac{-15}{-\frac{1}{3}}$

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

38) $\frac{\frac{7}{3}}{5}$

Answer each of the following questions.

39) Under what condition is ab positive?

40) Under what condition is ab negative?

41) If a^2 is positive, what can you conclude about a?

42) If a^3 is positive, what can you conclude about a?

43) If a^3 negative, what can you conclude about a?

44) Under what condition is ab equal to zero?

45) What is the sign of the product of six negative numbers?

46) What is the sign of the product of nine negative numbers?

Evaluate each of the following expressions.

47) $k-(-12)$ *if* $k=2.7$

48) $\frac{-13}{6}-x$ *if* $x=\frac{-11}{12}$

49) $-2abc-7a$ *if* $a=2, b=-1$ *and* $c=-\frac{1}{2}$

50) $\frac{2(a+b)}{-5}$ *if* $a=-5$ *and* $b=8$