Operations Meanings and Real Numbers B1

Name the sets of numbers to which each of the following numbers belongs.

1) -3            2) 7            3) 9/11            4) $\sqrt{25}$            5) 0            6) 7.78

7) $\sqrt{17}$            8) 5.875            9) 3.316624...            10) -15            11) 24

Identify the property of real numbers illustrated in each problem.

12) $31(1) = 31$            13) $17 + 5 = 5 + 17$            14) $12 + (-12) = 0$

15) $5(7 \cdot 8) = (5 \cdot 7)8$            16) $71(5 + 21) = 71(5) + 71(21)$

17) $29 + 0 = 29$            18) $(19/11)(11/19) = 1$            19) $13(7) = 7(13)$

20) $17 + (13 + 41) = (17 + 13) + 41$            21) $3(24 \cdot 19) = (3 \cdot 24)19$

22) $8 \div 24 = 24 \div 8$            23) $(-2/5) + (2/5) = 0$            24) $(-7/3)(-3/7) = 1$

Explain the meaning of the following operations.

25) $12 + 53$

26) $9 \times 12$

27) $8^5$

28) $76 - 44$

29) $48 \div 8$

30) Why is $48 \div 8$ defined?

31) Why is $6 \div 0$ undefined?

32) Why is 0 ÷ 0 undefined?