

Name \_\_\_\_\_

Chapter 5 Review

**SHORT ANSWER.** Write the word or phrase that best completes each statement or answers the question.

**Find the greatest common divisor of the numbers.**

- 1) 384 and 960

**Find the least common multiple of the numbers.**

- 2) 105 and 180

**Solve the problem.**

- 3) A club has 42 male members and 35 female members. If the club is to have a contest, where there are all-male and all-female teams competing, what is the most members a team can have? All teams must be of equal size and everyone must be on a team.
- 4) A store owner wishes to stack books into equal piles, each pile containing only one title. There are 30 books of one title and 70 books of another title in a shipment. What is the largest number of books that can be stacked in each pile?
- 5) A movie theater has two screens and shows its movie continuously. A 45 minute documentary is shown on one screen. A 135 minute feature is shown on the other screen. If both movies begin at noon, how many minutes will pass before both movies begin again at the same time?
- 6) Two people are running around an oval track. They leave the starting point together. One completes the track every 28 minutes. The second completes the track every 35 minutes. How long will it take for them to both pass the starting point at the same time, if they both continue to run?
- 7) Marc has 25 dollars in his checking account. Over his next three transactions, he wrote a check for 15 dollars, deposited 39 dollars and wrote another check for 32 dollars. What was his balance after the three transactions?

**Find the absolute value.**

- 8)  $|-300,000|$
- 9)  $|71|$

**Add or subtract as indicated.**

- 10)  $-13 - (-31)$
- 11)  $66 - (-17)$
- 12)  $-12 - 17$

**Evaluate.**

- 13)  $(-8)^2$
- 14)  $-2^3$
- 15)  $(-4)^3$
- 16)  $(-1)^8$

**Find the difference.**

- 17)  $6 - 15$

**Find the product.**

- 18)  $7(-9)$

**Find the quotient, or, if applicable, state that the expression is undefined.**

- 19)  $(-48) \div (8)$
- 20)  $(-42) \div (-7)$

**Find the sum.**

- 21)  $2 + (-17)$

**Perform the indicated operation or operations.**

- 22)  $-6 \cdot (-18)$
- 23)  $-5 \cdot 7$
- 24)  $0 \cdot (-18)$

**Perform the indicated operation.**

- 25)  $4 + (-3)$
- 26)  $-91 + (-19)$
- 27)  $53 + (-17)$

**Use the order of operations to find the value of the expression.**

- 28)  $4^2 - 8 \div 2^2 \cdot 4 - 3$
- 29)  $(2 - 4)(-5 - 9)$

30)  $4(5 - 3)^3 - 2(6 - 4)^3$

31)  $8 - 4(-7) - 10$

Insert  $<$  or  $>$  in the area between the integers to make the statement true.

32)  $-15$   $\underline{\quad}$   $-9$

33)  $74$   $\underline{\quad}$   $-57$

Perform the indicated operation(s). Where possible, reduce the answer to lowest terms.

34)  $\left(\frac{1}{5} - \frac{1}{6}\right) \div \left(\frac{7}{9}\right)$

35)  $\frac{3}{13} - \left(-\frac{1}{13}\right)$

36)  $\frac{6}{19} - \frac{7}{24}$

Convert the improper fraction to a mixed number.

37)  $\frac{46}{3}$

38)  $\frac{85}{9}$

39)  $-\frac{23}{5}$

Convert the mixed number to an improper fraction.

40)  $-8\frac{3}{5}$

41)  $12\frac{17}{24}$

Express the terminating decimal as a quotient of integers. If possible, reduce to lowest terms.

42)  $0.97$

43)  $0.6$

44)  $0.\overline{6}$

45)  $0.9\overline{5}$

Express the rational number as a decimal.

46)  $\frac{7}{20}$

47)  $\frac{6}{11}$

48)  $\frac{17}{9}$

Perform the indicated operation(s). Where possible, reduce the answer to lowest terms.

49)  $-\frac{3}{4} \div \frac{4}{7}$

50)  $\left(-\frac{3}{7}\right)(-4)$

Reduce the rational number to its lowest terms.

51)  $\frac{30}{75}$

52)  $\frac{238}{266}$

Answer the question.

53) A business is owned by three people. The first owns  $\frac{1}{12}$  of the business and the second owns  $\frac{1}{6}$  of the business. What fractional part of the business is owned by the third person?

54) A recipe calls for  $\frac{3}{16}$  cup of butter. How much is needed to double the recipe?

Multiply and simplify. Assume that all variables represent positive real numbers.

55)  $\sqrt{5} \cdot \sqrt{6}$

56)  $\sqrt{2} \cdot \sqrt{4}$

Perform the indicated operation. Simplify the answer if possible.

57)  $9\sqrt{12} + 12\sqrt{12}$

58)  $\sqrt{2} + \sqrt{8}$

59)  $\sqrt{6} \cdot \sqrt{6}$

60)  $\sqrt{27} - \sqrt{12}$

61)  $2\sqrt{10} + 3\sqrt{10} - \sqrt{10}$