

Simplify the expression by combining like terms.

1) $5x - 4 + 3x + 2$

2) $x - 23y + x + 23y$

Multiply.

3) $-11(23w)$

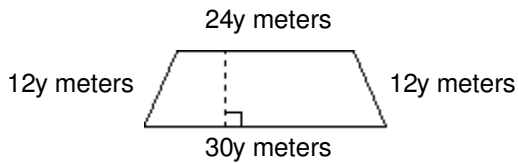
4) $6(x - 7)$

Simplify the expression.

5) $-3(6x - 7) - 7x$

Find the perimeter of the figure as indicated.

6) Find the perimeter of the trapezoid.



Decide whether the given number is a solution of the given equation. Show all work.

7) Is 12 a solution of $y + 11 = 23$?

8) Is 5 a solution of $k - 4 = 3$?

Solve the equation.

9) $b + 15 = 3$

10) $7x - 6x + 9 = 9$

11) $-2a = 14$

12) $\frac{n}{5} = 3$

13) $-9x + 4 = 76$

14) $3(x - 3) = 12$

15) $8x + 9 = 4x - 3$

16) $12x + 24 = 4x - 48$

17) $-5x = -3$

18) $\frac{1}{5}n = 10$

Write the phrase as a variable expression. Use x to represent "a number."

19) Sixteen subtracted from a number

Write the sentence as an equation.

20) The sum of -34 and 32 is equal to -2.

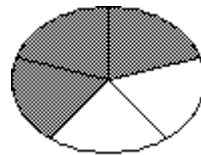
21) The product of 3 and a number amounts to 30. Find the number.

Identify the numerator and the denominator of the fraction.

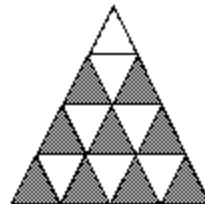
22) $\frac{1}{7}$

Write a fraction to represent the shaded area of the figure.

23)



24)



Graph the fraction on a number line.

25) $\frac{8}{5}$

Simplify by dividing.

26) $\frac{-29}{0}$

27) $\frac{0}{1}$

Write the fraction as an equivalent fraction with the given denominator.

28) $\frac{6}{13}$; denominator of 26

Write the prime factorization of the number.

29) 110

Simplify the fraction.

30) $\frac{48}{54}$

31) $\frac{16x^3y^2}{120xy}$

Perform the indicated operation. Write the answer in simplest form.

32) $\frac{5}{6} \cdot \frac{9}{10}$

33) $-\frac{3}{4} \cdot 200y^3$

Evaluate.

34) $\left(-\frac{1}{7}\right)^4$

Perform the indicated operation. Write the answer in simplest form.

35) $\frac{6}{17} \div \frac{1}{8}$

36) $\frac{2x^2}{5} \div \frac{x^3}{20}$

Evaluate the expression for the given replacement values. Write the answer in simplest form.

37) xy for $x = \frac{6}{11}$, $y = -\frac{11}{30}$

Add or subtract as indicated. Write the answer in simplest form.

38) $-\frac{1}{15} + \frac{9}{15}$

39) $\frac{27}{27} + \frac{48}{27} + \frac{6}{27}$

Evaluate the expression for the given replacement values. Write the answer in simplest form.

40) $x + y$ for $x = \frac{2}{3}$, $y = \frac{2}{3}$

Solve. Write the answer in simplest form.

41) $s + \frac{2}{5} = \frac{3}{5}$

Find the LCD of the list of fractions.

42) $\frac{-1}{3}, \frac{-8}{15}$

43) $\frac{3}{8}, \frac{-3}{f}$

Add or subtract as indicated. Write the answer in simplest form.

44) $\frac{1}{5} + \frac{2}{15}$

45) $-\frac{7}{3} + \frac{13}{8}$

$$46) \frac{5}{12} - \frac{9}{x}$$

Insert < or > to form a true sentence.

$$47) -\frac{6}{11} \text{ — } -\frac{2}{3}$$

Solve. Write the answer in simplest form.

$$48) h - \frac{5}{6} = \frac{11}{12}$$

Simplify the complex fraction.

$$49) \frac{\frac{1}{50}}{\frac{1}{30}}$$

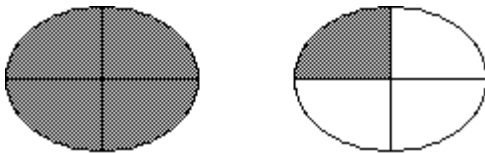
$$50) \frac{\frac{7x}{17}}{\frac{5}{8}}$$

Simplify.

$$51) \frac{1}{2} + \frac{1}{4} \cdot \frac{1}{6}$$

Represent the shaded area in the figure group with a mixed number.

52)



Write the mixed number as an improper fraction.

$$53) 5\frac{7}{8}$$

Write the improper fraction as a mixed or whole number.

$$54) \frac{34}{3}$$

Perform the indicated operation. Write the answer as a mixed number in simplest form.

$$55) 1\frac{2}{9} \cdot \frac{3}{5}$$

$$56) -3\frac{4}{7} \cdot (-3\frac{3}{7})$$

$$57) 26\frac{5}{8} + (-21\frac{1}{8})$$

Add or subtract as indicated. Write the answer as a mixed number in simplest form.

58)

$$\begin{array}{r} 9\frac{3}{4} \\ + 3\frac{5}{12} \\ \hline \end{array}$$

Answer Key

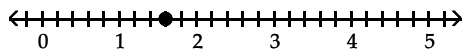
Testname: DSPM0700TEST2REVIEW

- 1) $8x - 2$
- 2) $2x$
- 3) $-253w$
- 4) $6x - 42$
- 5) $-25x + 21$
- 6) 78y meters
- 7) Yes
- 8) No
- 9) -12
- 10) 0
- 11) -7
- 12) 15
- 13) -8
- 14) 7
- 15) -3
- 16) -9
- 17) $\frac{3}{5}$
- 18) 50
- 19) $x - 16$
- 20) $-34 + 32 = -2$
- 21) 10
- 22) numerator: 1
denominator: 7

23) $\frac{3}{5}$

24) $\frac{9}{16}$

25)



26) undefined

27) 0

28) $\frac{12}{26}$

29) $2 \cdot 5 \cdot 11$

30) $\frac{8}{9}$

31) $\frac{2x^2y}{15}$

32) $\frac{3}{4}$

33) $-150y^3$

34) $\frac{1}{2401}$

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

36) $\frac{8}{x}$

37) $-\frac{1}{5}$

38) $\frac{8}{15}$

39) 3

40) $\frac{4}{3}$

41) $\frac{1}{5}$

42) 15

43) $8f$

44) $\frac{1}{3}$

45) $-\frac{17}{24}$

46) $\frac{5x - 108}{12x}$

47) $>$

48) $\frac{7}{4}$

49) $\frac{3}{5}$

50) $\frac{56x}{85}$

51) $\frac{13}{24}$

52) $1\frac{1}{4}$

Answer Key

Testname: DSPM0700TEST2REVIEW

53) $\frac{47}{8}$

54) $11\frac{1}{3}$

55) $\frac{11}{15}$

56) $12\frac{12}{49}$

57) $5\frac{1}{2}$

58) $13\frac{1}{6}$