Exam

Name_____

Solve. Write the fraction in simplest form.

1) Mr. and Mrs. Williams have a personal loan of $3300. They have paid off $\frac{2}{3}$ of the loan.   1) _____

How much of the loan have they paid off?

2) A warehouse stores 405 different inventory items. $\frac{3}{5}$ of these items are perishable. How   2) _____

many of the inventory items are perishable?

3) Find $\frac{1}{19}$ of 38.   3) _____

4) In a product survey comparing several soft drinks, $\frac{53}{219}$ of those asked preferred Drink A,   4) _____

and $\frac{124}{511}$ of those asked preferred Drink B. Which drink was preferred by more people?

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

5) $3\frac{8}{9} \cdot 9$ 5) _____

6) $28 \div 2\frac{4}{5}$ 6) _____

Solve.

7) $\frac{x}{8} = \frac{x}{7} + \frac{1}{8}$ 7) _____

8) $\frac{x}{2} + \frac{1}{5} = \frac{7}{20} + \frac{x}{4}$ 8) _____

9) $\frac{1}{5} - \frac{1}{4} = \frac{x}{20}$ 9) _____

10) $\frac{x}{5} - 1 = \frac{x}{2} + 7$ 10) _____

11) $\frac{5}{3} + \frac{x}{4} = \frac{5}{12}$ 11) _____

Divide and simplify.

12) $6x^3 \div \dfrac{3x^2}{2}$

12) _____

Multiply. Write the answer in simplest form.

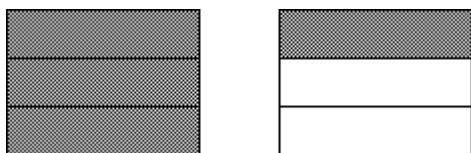13) $\dfrac{xz^3}{y} \cdot \dfrac{y}{xz}$

13) _____

14) $40x^2 \cdot \dfrac{3}{5}$

14) _____

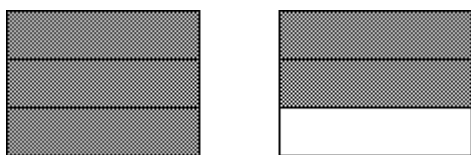**Determine which diagram is shaded to represent the given fraction.**
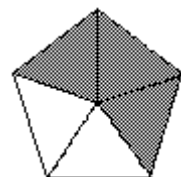
15) $\dfrac{5}{3}$

15) _____

A)
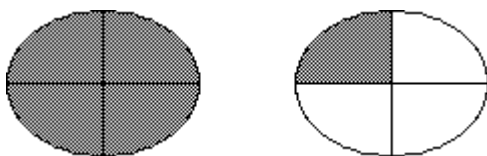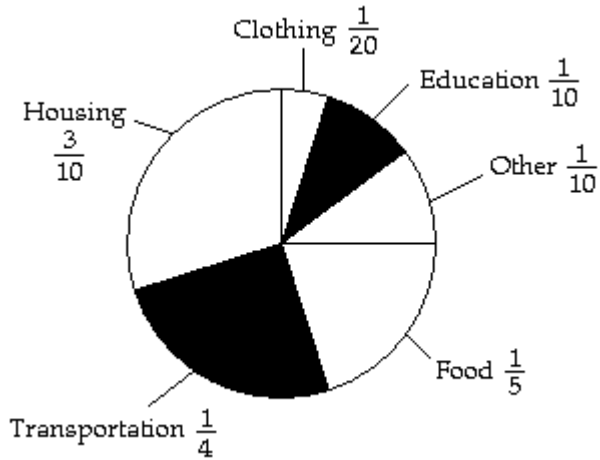

B)

C)

D)

The circle graph below shows us how an average consumer spends money. Use this information to answer the question

Clothing $\frac{1}{20}$

Education $\frac{1}{10}$

Housing $\frac{3}{10}$

Other $\frac{1}{10}$

Food $\frac{1}{5}$

Transportation $\frac{1}{4}$

16) Suppose your family spent \$52,000 on the items in the graph above. How much might we expect was spent on transportation?

16) _____

Write the fraction in simplest form.

17) $\dfrac{24k^3}{6k}$

17) _____

18) $\dfrac{350p^4r^3m^4}{70pr^3m^3}$

18) _____

Write the improper fraction as a mixed or whole number.

19) $\dfrac{256}{16}$

19) _____

Find the LCD of the list of fractions.

20) $\dfrac{11}{40}, \dfrac{1}{36}, \dfrac{1}{90}$

20) _____

21) $\dfrac{1}{7}, \dfrac{16}{12}$

21) _____

22) $\dfrac{11}{2}, \dfrac{4}{6}$

22) _____

23) $\dfrac{7}{8}, \dfrac{4}{20}$

23) _____

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

24) $\dfrac{xy^3}{z} \cdot \dfrac{z}{xy}$

24) _____

3

Decide whether the given replacement value is a solution of the given equation.

25) Is $-\dfrac{7}{9}$ a solution to $-\dfrac{1}{4}x = -\dfrac{7}{36}$?

25) _____

Fill in the blank with one of the words or phrases listed below

mixed number	complex fraction	like	numerator
composite number	equivalent	cross products	least common denominator
prime number	improper fraction	simplest form	undefined
reciprocals	proper fraction	prime factorization	denominator
0			

26) A fraction is in _____ when the numerator and the denominator have no factors in common other than 1.

26) _____

27) Fractions that have the same denominator are called _____ fractions.

27) _____

28) Fractions that represent the same portion of a whole are called _____ fractions.

28) _____

Determine whether the pair of fractions is equivalent.

29) $\dfrac{1}{3}$ and $\dfrac{2}{7}$

29) _____

30) $\dfrac{2}{5}$ and $\dfrac{32}{75}$

30) _____

31) $\dfrac{2}{4}$ and $\dfrac{5}{10}$

31) _____

Choose the best estimate for the sum or difference.

32) $15\dfrac{1}{4} - 1\dfrac{19}{20}$

32) _____

    A) 15   B) 13   C) 20   D) 14

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

33) $\left(\dfrac{91}{4} \cdot \dfrac{8}{49}\right) \div \dfrac{13}{7}$

33) _____

Insert < or > to form a true sentence.

34) $-\dfrac{1}{5}$ _____ $-\dfrac{2}{13}$

34) _____

Solve. Write the answer as a mixed number in simplest form.

35) A rectangular flower bed in front of a building measures $10\dfrac{2}{3}$ feet by $2\dfrac{1}{4}$ feet. What is the total area of the flower bed? Hint: The area of a rectangle is the product of the length times the width.

35) _____

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

36) $\dfrac{20}{33} + \dfrac{32}{33} + \dfrac{14}{33}$

36) _____

Simplify the complex fraction.

37) $\dfrac{\dfrac{12}{11}}{\dfrac{18}{11}}$

37) _____

Determine whether the statement is true or false.

38) A proper fraction cannot be equivalent to an improper fraction.

38) _____

39) A fraction whose numerator and denominator are two different prime numbers cannot be simplified.

39) _____

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

40)

$17\dfrac{5}{6}$

$-7\dfrac{2}{3}$

_____

40) _____

1) $2200
2) 243 items
3) 2
4) Drink B
5) 35
6) 10
7) – 7
8) $\frac{3}{5}$
9) –1
10) – $\frac{80}{3}$
11) – 5
12) 4x
13) z^2
14) $24x^2$
15) B
16) $13,000.00
17) $4k^2$
18) $5p^3m$
19) 16
20) 360
21) 84
22) 6
23) 40
24) y^2
25) No
26) simplest form
27) like
28) equivalent
29) not equivalent
30) not equivalent
31) equivalent
32) B
33) 2
34) <
35) 24 square feet
36) 2
37) $\frac{2}{3}$
38) True
39) True
40) $10\frac{1}{6}$

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