

# T102 FRACTION PRACTICE

All answers should be in simplified form and written as a mixed number unless otherwise indicated. You should not use your calculator for any part of this review.

Simplify.

1)  $\frac{18}{0}$

2)  $-\frac{96}{240}$

3)  $\frac{m^2 + 2m}{m^2 - 4}$

4)  $\frac{45x^2y}{20xy}$

5)  $\frac{9}{9}$

6)  $\frac{103}{128}$

7)  $\frac{40x^3yz^2}{36xy^2z^4}$

8)  $-\frac{186}{292}$

9)  $\frac{0}{516}$

Fill in the blank so that the fractions are equivalent..

10)  $-\frac{34}{80} = \frac{17}{?}$

11)  $\frac{10}{23} = \frac{?}{161}$

Use  $<$ ,  $>$ , or  $=$  to make a true statement.

12)  $-\frac{3}{14} ? -\frac{9}{42}$

13)  $\frac{4}{15} ? \frac{2}{5}$

14)  $-12\frac{1}{5} ? -11\frac{4}{3}$

Write the improper fraction as a mixed number.

15)  $\frac{38}{3}$

16)  $-\frac{34}{11}$

17)  $\frac{390}{-60}$

Write the mixed number as an improper fraction.

18)  $3\frac{4}{7}$

19)  $-12\frac{11}{13}$

Perform the indicated operation(s).

20)  $\frac{1}{4} + \frac{5}{16} + \frac{2}{8}$

21)  $15\frac{2}{7} + 12\frac{2}{5}$

22)  $-3\frac{3}{5} - \left(-6\frac{4}{7}\right)$

23)  $-\frac{5}{24} - \frac{8}{3x}$

24)  $\frac{-15}{28} \cdot \frac{7}{3}$

$$25) \frac{30m^2}{7n} \div 3m$$

$$26) 39 \div 4\frac{1}{3}$$

$$27) -4\frac{6}{7} \div -1\frac{1}{3}$$

$$28) -7 \div \frac{1}{7}$$

$$29) \frac{-15}{48} \div \frac{5}{12}$$

$$30) -6\frac{2}{3} \cdot -3\frac{3}{4}$$

$$31) 1\frac{3}{5} \cdot 10$$

$$32) \frac{17}{18} - \frac{4}{9} \cdot 1\frac{1}{8}$$

**Simplify.**

$$33) \left(\frac{2}{3}\right)^2 + 3\frac{1}{2} \div 2\frac{1}{2}$$

$$34) \left(2\frac{2}{3} - 1\frac{1}{2}\right)^2 + 3 \cdot 1\frac{1}{8} \div 18$$

$$35) \left(\frac{2x^2}{3}\right)^3$$

**Evaluate.**

$$36) 4^{-2}$$

$$37) -2^{-4}$$

38) Solve for x:

$$a. (-2)^x = -32$$

$$b. \frac{2}{3} = \left(\frac{3}{2}\right)^x$$

$$c. 8^{2x} = 16$$

39) Write the following in simplest form using positive exponents.

$$a. y^{-1} \cdot y^{-3}$$

$$b. (4x^3y^3)^0$$

40) Satisfy the given requirement with the best possible numerator or denominator. (Use only whole numbers.)

$$a. \frac{\quad}{100} \text{ is close to, but less than } \frac{1}{2}$$

$$b. \frac{11}{\quad} \text{ is close to, but greater than } \frac{1}{2}$$

$$c. \frac{\quad}{12} \text{ is close to, but less than } 1$$

$$d. \frac{95}{\quad} \text{ is close to, but greater than } 1$$

# Answer Key

## Testname: FRACTION PRACTICE

1) Undefined

2)  $-\frac{2}{5}$

3)  $\frac{m}{m-2}$

4)  $\frac{9x}{4}$

5) 1

6)  $\frac{103}{128}$

7)  $\frac{10x^2}{9yz^2}$

8)  $-\frac{93}{146}$

9) 0

10) -40

11) 70

12) =

13) <

14) >

15)  $12\frac{2}{3}$

16)  $-3\frac{1}{11}$

17)  $-6\frac{1}{2}$

18)  $\frac{25}{7}$

19)  $-\frac{167}{13}$

20)  $\frac{13}{16}$

21)  $27\frac{24}{35}$

22)  $2\frac{34}{35}$

23)  $\frac{-5x-64}{24x}$

24)  $-\frac{5}{4}$

25)  $\frac{10m}{7n}$

26) 9

27)  $3\frac{9}{14}$

28) -49

29)  $-\frac{3}{4}$

30) 25

31) 16

32)  $\frac{4}{9}$

33)  $1\frac{38}{45}$

34)  $1\frac{79}{144}$

35)  $\frac{8x^6}{27}$

36)  $\frac{1}{16}$

37)  $-\frac{1}{16}$

38) a.  $x = 5$

b.  $x = -1$

c.  $x = \frac{2}{3}$

39) a.  $\frac{1}{y^4}$

b. 1

40) a. 49

b. 21

c. 11

d. 94