

Name _____
2015

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Write the improper fraction as a mixed or whole number.

1) $\frac{19}{6}$

1) _____

A) $3\frac{1}{7}$

B) $3\frac{1}{6}$

C) $2\frac{1}{6}$

D) $4\frac{1}{6}$

Write the fraction in simplest form.

2) $\frac{6x}{21x^2}$

2) _____

A) $\frac{2}{7x}$

B) $\frac{2x}{7}$

C) $\frac{15}{x}$

D) $\frac{2}{7x^2}$

Solve. Write the fraction in simplest form.

3) There are 5280 feet in a mile. What fraction of a mile is represented by 90 feet?

3) _____

A) $\frac{3}{173}$

B) $\frac{90}{5280}$

C) $\frac{3}{176}$

D) $\frac{3}{880}$

Multiply. Write the answer in simplest form.

4) $\frac{1}{4} \cdot \frac{2}{7}$

4) _____

A) $\frac{2}{9}$

B) $\frac{1}{14}$

C) $\frac{3}{11}$

D) $\frac{2}{28}$

Evaluate.

5) $\left(-\frac{9}{7}\right)^2 \cdot \frac{1}{9}$

5) _____

A) $-\frac{18}{7}$

B) $\frac{9}{49}$

C) $\frac{18}{63}$

D) $-\frac{9}{49}$

Divide and simplify.

6) $-\frac{3}{8} \div \frac{7}{5}$

6) _____

A) $-\frac{15}{56}$

B) $-\frac{21}{40}$

C) $\frac{15}{56}$

D) $\frac{21}{40}$

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

7) $\frac{1}{15} + \frac{5}{6}$

7) _____

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

B) $\frac{7}{30}$

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

D) $\frac{9}{10}$

Perform the indicated operation. Write the answer in simplest form. If the answer is an improper fraction, write it as a mixed number.

8) $2\frac{2}{3} \cdot 4\frac{1}{2}$

8) _____

A) $8\frac{23}{6}$

B) 13

C) 18

D) 12

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

9) Daniel is $70\frac{1}{5}$ in. tall and his brother Tyler is $67\frac{11}{20}$ in. tall. How much taller is Daniel?

9) _____

A) $2\frac{2}{3}$ in.

B) $3\frac{7}{20}$ in.

C) $2\frac{13}{20}$ in.

D) $3\frac{13}{20}$ in.

Solve.

10) $-\frac{3}{7} + y = -\frac{1}{14}$

10) _____

A) $\frac{1}{2}$

B) $\frac{5}{14}$

C) $\frac{2}{7}$

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

11) $8z + \frac{1}{24} - 7z = \frac{3}{4}$

11) _____

A) $\frac{1}{10}$

B) $\frac{17}{24}$

C) $\frac{1}{12}$

D) $\frac{19}{24}$

Write the decimal as a fraction or mixed number in lowest terms.

12) 0.56

12) _____

A) $\frac{1}{3136}$

B) $\frac{14}{250}$

C) $\frac{14}{25}$

D) $\frac{1}{56}$

Simplify by combining like terms.

13) $23.2x - 15.8 - 14.6x + 25.4$

13) _____

A) $18.2x$

B) $9.6x + 9.6$

C) $8.6x + 9.6$

D) $8.6x + 10.6$

Solve.

- 14) A circular firepit has a diameter of 45 inches. Approximate the circumference of this firepit and of a firepit whose diameter is doubled. (Use 3.14 for π .) 14) _____

- A) 141.3 in. and 282.6 in. B) 282.6 in. and 565.2 in.
C) 35.55 in. and 141.3 in. D) 141.3 in. and 565.2 in.

Solve the equation.

- 15) $1.2x - 3.7 = 0.8x - 1.22$ 15) _____

- A) 6.2 B) 6.82 C) 6.3 D) 0.161

Write the rate as a unit rate.

- 16) 216 miles on 6 gallons of gas 16) _____

- A) 36 mi/gal B) 222 gal C) 0.028 mi/gallon D) 1296 mi

Solve the proportion for the given variable. Round the solution where indicated.

- 17) $\frac{36}{12} = \frac{21}{x}$ 17) _____

- A) 7 B) 12 C) 3 D) 21

Solve.

- 18) It takes Winnie 22 minutes to type and spell check 10 pages of a manuscript. Find how long it takes her to type and spell check 75 pages. Round to the nearest whole number if necessary. 18) _____

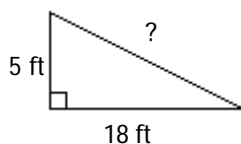
- A) 34 min B) 22 min C) 165 min D) 1650 min

- 19) A bag of fertilizer covers 500 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 220 feet by 210 feet. 19) _____

- A) 924 bags B) 93 bags C) 92 bags D) 9240 bags

Find the unknown length in the right triangle. If necessary, approximate the length to the nearest thousandth.

- 20) $c = \sqrt{a^2 + b^2}$ or $a^2 + b^2 = c^2$ 20) _____



- A) 174.5 ft B) 115.065 ft C) 18.682 ft D) 349 ft

Answer Key

Testname: MAT 090 B MOCK TEST

- 1) B
- 2) A
- 3) C
- 4) B
- 5) B
- 6) A
- 7) D
- 8) D
- 9) C
- 10) B
- 11) B
- 12) C
- 13) C
- 14) A
- 15) A
- 16) A
- 17) A
- 18) C
- 19) B
- 20) C