

Placement Test for *Math in Focus 5A*

1. Estimate the value of $887,722 + 543,169$ by rounding each number to the nearest thousand. Then find the exact sum.

a. $887,722 + 543,169$ is about _____.

b. $887,722 + 543,169$ is exactly _____.

2. Round each number to the nearest hundred thousand and then estimate the product or quotient.

a. $531,853 \times 8$ _____ b. $2,799,354 \div 5$ _____

3. Consider the number 978,654,321.

a. Write out the number in words.

b. What digit is in the ten millions place? _____

c. What is the value of the digit 6 in this number? _____

d. $978,654,321 = 978,000,000 +$ _____ $+ 321$

e. Round 978,654,321 to the nearest million. _____

4. Solve using mental math.

a. $289 + 675 =$ _____

b. $702 + 964 =$ _____

c. $642 - 275 =$ _____

d. $889 - 92 =$ _____

e. $99 \times 50 =$ _____

f. $19 \times 70 =$ _____

g. $44 \times 25 =$ _____

h. $12 \times 12 =$ _____

5. Use order of operations to simplify. Then solve.

a. $42 + 20 - 15$

_____ = _____

b. $66 + 37 - 91 - 12$

_____ = _____

c. $12 \times 20 \div 6$

_____ = _____

d. $54 + 9 \times 9$

_____ = _____

e. $600 - 22 \times 4$

_____ = _____

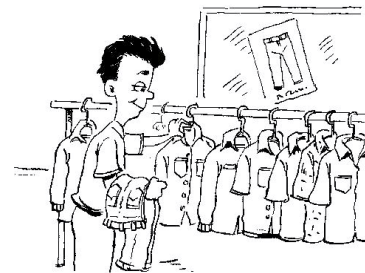
f. $(60 + 64) - 7 \times 6$

_____ = _____

g. $(9 + 11 + 4) \div (2 \times 6)$

_____ = _____

6. Charles bought 2 pairs of jeans and 3 shirts for \$255. Each pair of jeans cost \$15 more than each shirt. What was the cost of 1 pair of jeans?



The cost of 1 pair of jeans was \$_____.

7. Ray saved twice as much as Caroline. Lola saved \$75 more than Caroline. If they saved \$1,795 all together, how much did Caroline save?



Caroline saved \$_____.

8. Solve. Write your answers as whole numbers or decimals. Round to hundredths.

a. $1,920 \div 24 =$ _____ b. $3,960 \div 72 =$ _____

c. $26 \div 6 =$ _____ d. $2,288 \div 12 =$ _____

9. Which of the following will result in the answer 42? Circle your answer.

$42,000 \div 100$ $42,000 \div 10$ $4,200 \div 100$

10. Express each fraction in its simplest form.

a. $\frac{6}{10} =$ _____ b. $\frac{16}{20} =$ _____

11. Express each fraction as a decimal.

a. $\frac{6}{10} =$ _____ b. $\frac{37}{100} =$ _____

12. Subtract. Express the differences in their simplest form.

a. $\frac{7}{9} - \frac{1}{3} =$ _____ b. $4 - \frac{1}{3} - \frac{1}{6} =$ _____

13. Solve. Express your answers in their simplest form.

a. $3\frac{9}{10} + 2\frac{5}{6} = \underline{\hspace{2cm}}$

b. $6\frac{1}{9} - 2\frac{2}{3} = \underline{\hspace{2cm}}$

c. $9 \times 4\frac{3}{4} = \underline{\hspace{2cm}}$

d. $\frac{3}{8}$ of 24 = $\underline{\hspace{2cm}}$

e. $10\frac{6}{10} \times \frac{5}{6} = \underline{\hspace{2cm}}$

f. $16\frac{8}{10} \div 4 = \underline{\hspace{2cm}}$

g. $9 \div 5\frac{3}{5} = \underline{\hspace{2cm}}$

h. $4\frac{3}{4} \div 8\frac{3}{8} = \underline{\hspace{2cm}}$

14. Find the equivalent measures.

a. $1\frac{4}{5}$ min = $\underline{\hspace{2cm}}$ sec

b. $2\frac{5}{8}$ lb = $\underline{\hspace{2cm}}$ oz

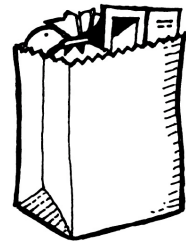
c. $3\frac{2}{5}$ m = $\underline{\hspace{2cm}}$ cm

d. $5\frac{1}{4}$ ft = $\underline{\hspace{2cm}}$ in.

15. What fraction of \$3 is 50¢? $\underline{\hspace{2cm}}$

16. Express 4 months as a fraction of 3 years. $\underline{\hspace{2cm}}$

17. Calinda spent $\frac{4}{5}$ of her money at the grocery store. Jonathan spent $\frac{1}{2}$ of his money at the grocery store. They both have \$35 left over. How much did Calinda have at first?



Calinda had \$ $\underline{\hspace{2cm}}$ at first.

18. A bathtub is $\frac{3}{4}$ full of water. If 14 more gallons are needed to fill the bathtub completely, how much water does the bathtub hold?



The bathtub holds _____ gallons of water.

19. There are 10 ribbons on a stick. Each ribbon is $1\frac{1}{4}$ feet long. What is the total length of the ribbons all together? Express your answer as a decimal number.



The total length of the ribbons is _____ feet.

20. What does $9y$ mean? Circle your answer.

$9 \div y$ $9 + y$ $9 - y$ $9 \times y$

21. For what value of x will $6x - 3 > 2x + 15$ be true?
Circle your answer.

$x = 5$ $x = 4$ $x = 3$ $x = 2$

22. Use order of operations to simplify each expression.

a. $9a + 5a - 2b$ _____

b. $15y + 3 - y + 2y + 4$ _____

c. $(x - 22) \div (6 + 4)$ _____

23. Felix has some pineapples. He put the pineapples into x boxes of 3 pineapples each and has 2 pineapples left.

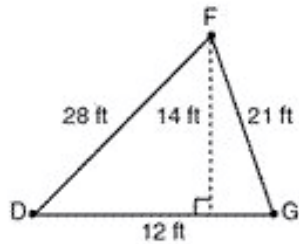
a. Find the total number of pineapples Felix has in terms of x .

b. If $x = 6$, how many pineapples does Felix have?

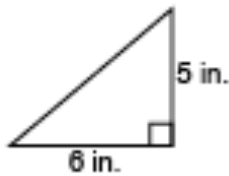
Felix has _____ pineapples.



24. Find the area of each triangle.



a. area = _____ feet²



b. area = _____ inches²

25. Express the ratio 15 : 5 in its simplest form. _____ : _____

26. There are 24 chickens in the barn. 10 of them are roosters. Find the ratio of the number of roosters to the number of hens in the barn. Express the ratio in its simplest form.



_____ : _____

Math in Focus 5A Placement Test Answer Key

Point values are indicated in parentheses next to each item number; 100 points total. If student's score is 80 or more, consider starting with level 5B.

1. (2 points)
 - a. 1,431,000
 - b. 1,430,891
2. (4 points)
 - a. 4,000,000
 - b. 560,000
3. (5 points)
 - a. Nine hundred seventy-eight million six hundred fifty-four thousand three hundred twenty-one
 - b. 7
 - c. 600,000
 - d. 654,000
 - e. 979,000,000
4. (8 points)
 - a. 964
 - b. 1,666
 - c. 367
 - d. 797
 - e. 4,950
 - f. 1,330
 - g. 1,100
 - h. 144
5. (7 points)
 - a. $62 - 15 = 47$
 - b. $103 - 91 - 12 = 0$
 - c. $240 \div 6 = 40$
 - d. $54 + 81 = 135$
 - e. $600 - 88 = 512$
 - f. $124 - 42 = 82$
 - g. $24 \div 12 = 2$
6. (2 points)

The cost of 1 pair of jeans was \$60.
7. (2 points)

Caroline saved \$430.
8. (8 points)
 - a. 80
 - b. 55
 - c. 4.33
 - d. 190.67
9. (2 points)

$4,200 \div 100$
10. (2 points)
 - a. $\frac{3}{5}$
 - b. $\frac{4}{5}$
11. (4 points)
 - a. 0.6
 - b. 0.37
12. (4 points)
 - a. $\frac{4}{9}$
 - b. $3\frac{1}{2}$
13. (16 points)
 - a. $6\frac{11}{15}$
 - b. $3\frac{4}{9}$
 - c. $6\frac{3}{4}$
 - d. $9\frac{1}{2}$
 - e. $2\frac{1}{8}$
 - f. 8
 - g. 15
 - h. 2
14. (4 points)
 - a. 108 sec
 - b. 42 oz
 - c. 340 cm
 - d. 63 in.
15. (1 point)

$\frac{1}{6}$
16. (1 point)

$\frac{1}{9}$
17. (2 points)

Calinda had \$175 at first.
18. (2 points)

The bathtub holds 56 gallons of water.

19. (2 points)

The total length of the ribbons is 12.5 feet.

20. (2 points)

$$9 \times y$$

21. (2 points)

$$x = 5$$

22. (6 points)

a. $14a - 2b$

b. $16y + 7$

c. $(x - 22) \div 10$

23. (4 points)

a. $3x + 2$

b. Felix has 20 pineapples.

24. (4 points)

a. 84 feet^2

b. 15 inches^2

25. (2 points)

$$3 : 1$$

26. (2 points)

$$5 : 7$$