

Name _____

Date: _____

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

Solve the problem. Round your answer to the tenth of a percent.

- 1) What percent of 2365 is 24? 1) _____
 A) 9854.2% B) 10.1% C) 20.1% D) 1.0%

Use the pictograph to answer the question.

- 2) This pictograph shows projected sales of compact disks (CDs) for a popular rock band for seven consecutive years. 2) _____

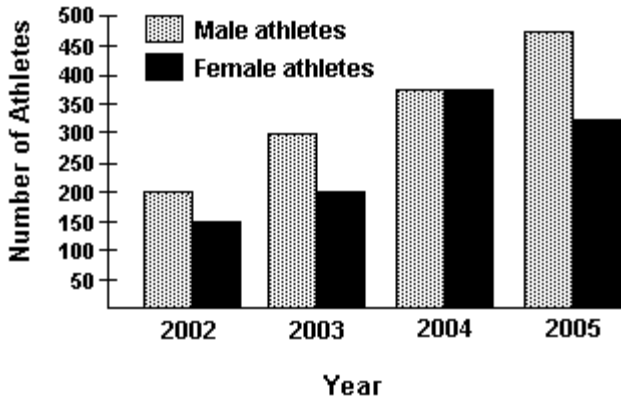
Year	Projected CD Sales
2012	⊙⊙
2011	⊙⊙⊙⊙⊙⊙
2010	⊙⊙⊙⊙⊙⊙⊙⊙
2009	⊙⊙⊙⊙⊙⊙⊙⊙⊙
2008	⊙⊙⊙⊙
2007	⊙⊙⊙⊙⊙⊙
2006	⊙⊙⊙

⊙ = 100,000 CDs

Approximately how many fewer CDs will be sold in 2008 than in 2010?

- A) 400,000 CDs B) 600,000 CDs C) 500,000 CDs D) 4 CDs

Refer to the double-bar graph below which shows the number of male and female athletes at a university over a four-year period. Solve the problem.



- 3) What was the percent of decrease in the number of female athletes from 2004 to 2005? 3) _____
 A) 50% B) 18.75% C) 13.3% D) 25%

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

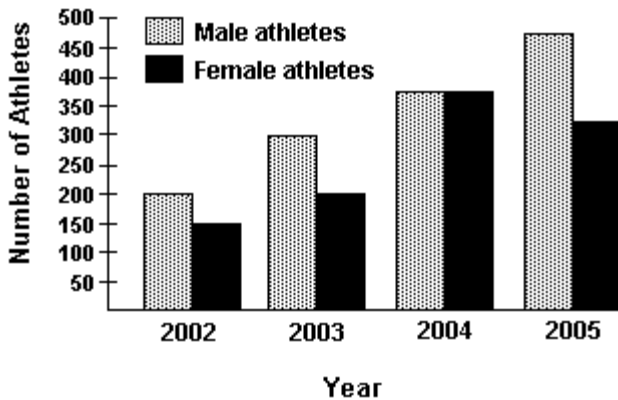
Solve the problem.

- 4) The following table shows the number of male infants born in a certain city on New Year's Day in various years. Make a horizontal bar graph to illustrate the data. 4) _____

Year	No. of Male Infants Born New Year's Day
1990	15
1991	35
1992	25
1993	40
1994	25
1995	25

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

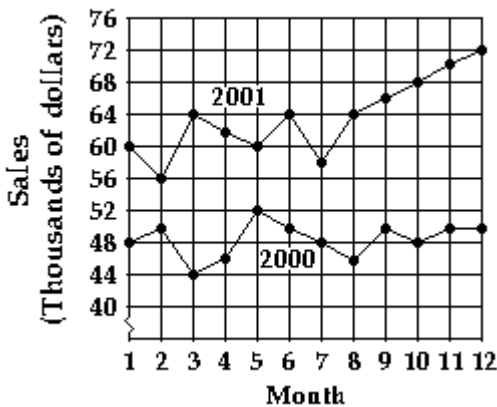
Refer to the double-bar graph below which shows the number of male and female athletes at a university over a four-year period. Solve the problem.



- 5) Which year had the same number of male and female athletes?
 A) 2004 B) 2002 C) 2005 D) 2003 5) _____

Use the graph to answer the question.

Big "D" Sales (2000 - 2001)

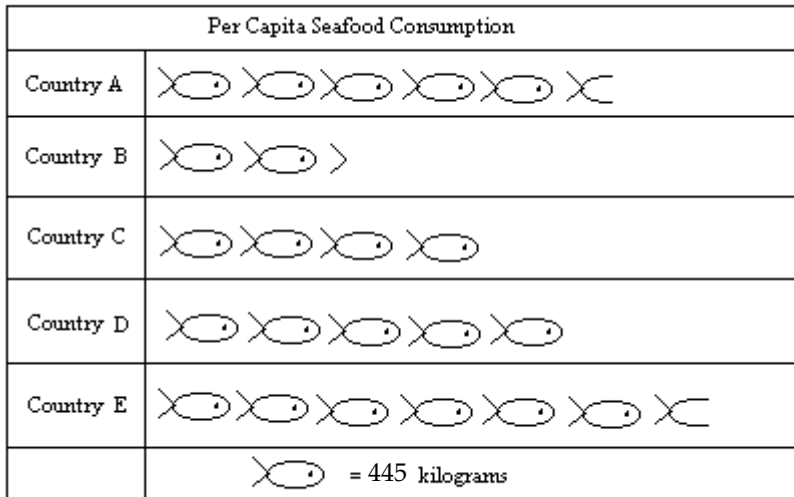


- 6) What was the total increase in sales for the first 6 months from 2000 to 2001?
 A) \$12,000 B) \$76,000 C) \$652,000 D) \$18,000 6) _____

Use the pictograph to answer the question.

7) For selected countries, this pictograph shows approximately how many kilograms of seafood are consumed by each person (per capita) annually.

7) _____

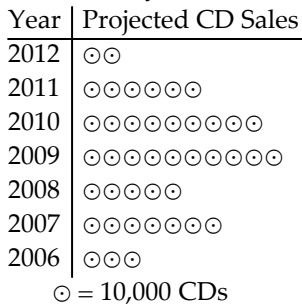


Which country consumes the most seafood?

- A) Country C B) Country B C) Country A D) Country E

8) This pictograph shows projected sales of compact disks (CDs) for a popular rock band for seven consecutive years.

8) _____



How many sales do 7 CD symbols represent?

- A) 10,000 B) 7
 C) 70,000 D) Not enough information is given.

Find any modes that exist.

9) \$83, \$51, \$32, \$51, \$29, \$83

9) _____

- A) No mode B) \$83 C) \$51 D) \$83, \$51

Solve the problem.

10) Jeremy's car got 280 miles (highway) on 10 gallons of gasoline. What was the average number of miles expected per gallon?

10) _____

- A) 30 mpg B) 29 mpg C) 27 mpg D) 28 mpg

- 11) An experiment is done to compare the strength of two types of fishing lines. Several lengths of each type were tested and the results are in the two tables below. Which type of fishing line is better? 11) _____

Line X
Strength, in pounds

104	103	105
104	103	106
103	109	103

A) Line X

Line Y
Strength, in pounds

104	105	106
109	104	109
104	104	106

B) Line Y

- 12) The swim coach keeps a log for the number of miles travelled round trip to swim meets: 23, 29, 37, 48, 63, 69, 87. Find the median number of miles travelled. 12) _____
- A) 37 miles B) 48 miles C) 63 miles D) 51 miles

Find the average for the set of numbers.

- 13) 51, 61, 37, 57, 34 13) _____
- A) 40 B) 51 C) 48 D) None

Solve the problem.

- 14) You decide to keep track of the number of text messages you send each day. You record the following data: 8, 4, 25, 10, 27, 45, 38, 38. Find the median number of text messages you sent. 14) _____
- A) 26 text messages B) 24.5 text messages
C) 27 text messages D) 25 text messages

Solve the problem. Round to the nearest unit.

- 15) 583 is 11.2% of what? 15) _____
- A) 5205 B) 520,500 C) 52,050 D) 1

Give three kinds of notation for the percent.

- 16) 75.1% 16) _____
- A) $\frac{75.1}{100}$; $75.1 \times \frac{1}{100}$; 75.1×0.01 B) $\frac{75.1}{10}$; $75.1 \times \frac{1}{10}$; 75.1×0.1
C) $\frac{751}{100}$; $75 \times \frac{1}{100}$; 75×0.01 D) $\frac{75.1}{1000}$; $75.1 \times \frac{1}{1000}$; 75.1×0.001

Solve the problem.

- 17) The price of a necklace is \$18.99. If the salesperson's rate of commission is 10%, how much commission is earned on the sale of the necklace? Round to the nearest cent. 17) _____
- A) \$1.91 B) \$19.09 C) \$1.90 D) \$18.99

Find fraction notation for the ratio. You need not simplify.

- 18) At an advertising agency that employs 245 people, 117 employees receive 3 weeks of paid vacation each year. What is the ratio of those who receive 3 weeks of paid vacation to the total number of employees? 18) _____
- A) $\frac{245}{117}$ B) $\frac{117}{245}$ C) $\frac{128}{245}$ D) $\frac{245}{128}$

Find the ratio of the first number to the second and simplify.

19) 8 to 18

A) $\frac{4}{18}$

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

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

D) $\frac{8}{18}$

19) _____

Solve the problem. Round your answer to two decimal places if necessary.

20) What is $2\frac{1}{5}\%$ of 75?

A) 0.02

B) 165

C) 1.65

D) 16.5

20) _____

21) 5000% of 349 is what?

A) 1,745,000

B) 1745

C) 174,500

D) 17,450

21) _____

Find percent notation for the fraction notation in the sentence.

22) $\frac{21}{25}$ of the residents of Ashville exercise regularly.

A) 840%

B) 84%

C) 8.4%

D) 0.84%

22) _____

Solve the problem.

23) Jack is currently driving into a headwind (17% decrease). If his normal mileage is 30 mpg, what will his car's mileage be in the headwind? Round your answer to the nearest tenth.

A) 30 mpg

B) 47 mpg

C) 7.3 mpg

D) 24.9 mpg

23) _____

Find the compound amount for the deposit. Round your answer to the nearest cent.

24) \$13,000 at 12% compounded annually for 18 years

A) \$89,258.53

B) \$39,520.00

C) \$99,969.56

D) \$41,080.00

24) _____

Solve the problem. Round to the nearest unit.

25) 189 is 35% of what?

A) 5400

B) 54,000

C) 2

D) 540

25) _____

Find the simple interest. Round your answer to the nearest cent.

26) Principal = \$3200

Interest Rate = $7\frac{1}{2}\%$

Time in years = 9

A) \$21,600.00

B) \$2016.00

C) \$2160.00

D) \$2376.00

26) _____

Solve the problem.

27) A telephone costs \$408. If the sales tax rate is 3%, how much tax is charged and what is the total price? Round your answers to the nearest cent.

A) \$8.16, \$416.16

B) \$12.24, \$420.24

C) \$16.32, \$424.32

D) \$122.40, \$530.40

27) _____

Translate to a proportion. Do not solve.

28) 83% of what is 46?

A) $\frac{N}{100} = \frac{83}{46}$

B) $\frac{46}{100} = \frac{83}{b}$

C) $\frac{83}{100} = \frac{a}{46}$

D) $\frac{83}{100} = \frac{46}{b}$

28) _____

Find decimal notation for the number in percent notation.

29) Only 0.8% of those polled had heard the news.

A) 0.0008

B) 0.08

C) 0.8

D) 0.008

29) _____

Solve the problem. Round your answer to the nearest cent.

30) Brad invests \$2800 in an account paying 9% compounded quarterly. How much is in the account after 3 months?

A) \$2863.00

B) \$2860.98

C) \$2815.62

D) \$3052.00

30) _____

Translate to a proportion. Do not solve.

31) What is 138% of 33?

A) $\frac{138}{100} = \frac{33}{b}$

B) $\frac{138}{100} = \frac{a}{33}$

C) $\frac{100}{33} = \frac{a}{138}$

D) $\frac{138}{33} = \frac{a}{100}$

31) _____

Find the compound amount for the deposit. Round your answer to the nearest cent.

32) \$7900 at 3.9% compounded annually for 3 years.

A) \$8860.82

B) \$9206.39

C) \$8208.10

D) \$8824.30

32) _____

Solve the problem. Round your answer to the tenth of a percent.

33) What percent of 9 is 0.02?

A) 450.0%

B) 22.2%

C) 2.2%

D) 0.2%

33) _____

Solve the problem. Assume that simple interest is being calculated in each case. Round your answer to the nearest cent.

34) Winco Enterprise, Inc. bought a new computer system. To pay for the system, they borrowed \$58,230 at $11\frac{5}{6}\%$ interest for 185 days. Find the interest owed.

A) \$3246.52

B) \$1722.64

C) \$6890.55

D) \$3492.47

34) _____

Find the rate, or speed, as a ratio of distance to time. Round where appropriate.

35) 80 mi, 4 hr

A) 20 mph

B) 45 mph

C) 40 mph

D) 80 mph

35) _____

Solve.

36) During one year, the Larson's real estate bill included \$444 for local schools. Of this amount, \$230 went to the high school district. What percent did the Larsons pay to the high school district? (Round answer to two decimal places.)

A) 51.58%

B) 51.80%

C) 48.20%

D) 421.00%

36) _____

Solve the problem.

37) Brand X copier has improved its copier so that it produces 20% more copies than its old model. If the old model ran 434 copies per hour, how many copies would the new model run? Round your answer to the nearest whole number.

A) 241 copies per hour

B) 506 copies per hour

C) 521 copies per hour

D) 449 copies per hour

37) _____

Find fraction notation and simplify.

38) 0.8%

A) $\frac{1}{250}$

B) $\frac{2}{125}$

C) $\frac{1}{125}$

D) $\frac{2}{25}$

38) _____

Find percent notation.

39) $\frac{61}{100}$

39) _____

A) 6.1%

B) 1000%

C) 30.5%

D) 61%

Find fraction notation for the ratio. You need not simplify.

40) A baseball team has played 7 games so far this season. The team has won 6 games. What is the ratio of games won to games played so far?

40) _____

A) $\frac{6}{7}$

B) $\frac{13}{6}$

C) $\frac{7}{6}$

D) $\frac{6}{13}$

Solve.

41) If 8 sandwich rolls cost \$1.44, how much will 17 rolls cost?

41) _____

A) \$13.52

B) \$3.06

C) \$11.52

D) \$8.36

Solve the problem.

42) Jason is paid \$500 per month plus a commission of 4% of the first \$2,500 of his sales, and 6% of his sales over \$2,500. Last month his sales totaled \$15,150. Find Jason's gross pay for the month.

42) _____

A) \$2924.00

B) \$1509.00

C) \$1359.00

D) \$2015.00

Fill in the missing table value.

43) The following table provides data showing how yearly premiums for car insurance increase with an accident on record.

43) _____

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
35	\$500	\$1100	

A)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
35	\$500	\$1100	220%

B)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
35	\$500	\$1100	45%

C)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
35	\$500	\$1100	120%

D)

Age	Rate for Perfect Record	Rate for Accident on Record	Percent Increase for Accident on Record
35	\$500	\$1100	87%

Solve.

44) The ratio of the height to the width of a packaging label is 5 to 19. If the height of the label is 1.5 in., what is its width?

44) _____

A) 20.5 in.

B) 6.5 in.

C) 5.7 in.

D) 0.4 in.

Solve the problem. Round your answer to the nearest cent.

- 45) John Lee's savings account has a balance of \$3861. After 4 years, what will the amount of interest be at 8% compounded semiannually? 45) _____
A) \$1235.52 B) \$1391.85 C) \$1423.05 D) \$655.82

Solve.

- 46) $\frac{x}{33} = \frac{1}{11}$ 46) _____
A) $\frac{1}{3}$ B) 363 C) 3 D) 4

Solve the problem.

- 47) A real estate agent's commission rate is 12%. He receives a commission of \$27,768 on the sale of a home. How much did the home sell for? 47) _____
A) \$259,168 B) \$203,632 C) \$31,100 D) \$231,400

Solve the problem. Round your answer to the nearest cent.

- 48) If inflation is 8% a year compounded annually, what will it cost in 16 years to buy a house currently valued at \$75,000? 48) _____
A) \$256,945.70 B) \$140,473.59 C) \$277,501.35 D) \$237,912.68

Solve.

- 49) On a test of 50 items, Ken got 38 correct. What percent were correct? 49) _____
A) 73% B) 27% C) 24% D) 76%

Find the missing values.

- 50)

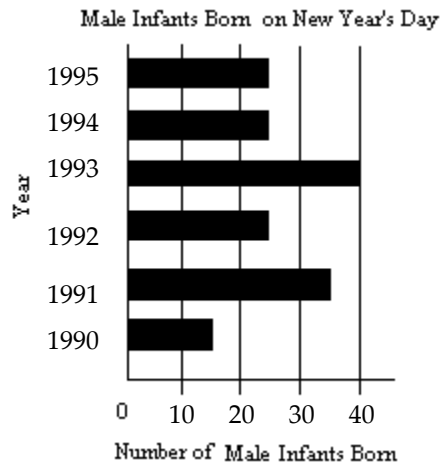
Marked Price	Rate of Discount	Discount	Sale Price
\$84		\$37.80	

 50) _____
A) 47%, \$46.20 B) 46%, \$46.20 C) 4.5%, \$46.20 D) 45%, \$46.20

Answer Key

Testname: TEST # 3 REVIEW MATH 0306 FALL 2010

- 1) D
- 2) A
- 3) C
- 4) Answers may vary. The following is a possible answer.



- 5) A
- 6) B
- 7) D
- 8) C
- 9) D
- 10) D
- 11) B
- 12) B
- 13) C
- 14) A
- 15) A
- 16) A
- 17) C
- 18) B
- 19) C
- 20) C
- 21) D
- 22) B
- 23) D
- 24) C
- 25) D
- 26) C
- 27) B
- 28) D
- 29) D
- 30) A
- 31) B
- 32) A
- 33) D
- 34) D

Answer Key

Testname: TEST # 3 REVIEW MATH 0306 FALL 2010

- 35) A
- 36) B
- 37) C
- 38) C
- 39) D
- 40) A
- 41) B
- 42) C
- 43) C
- 44) C
- 45) C
- 46) C
- 47) D
- 48) A
- 49) D
- 50) D