

Chapter 4 TECM 118 Practice Test

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

Write the ratio in lowest terms.

1) $5\frac{1}{3}$ pounds to 7 pounds 1) _____

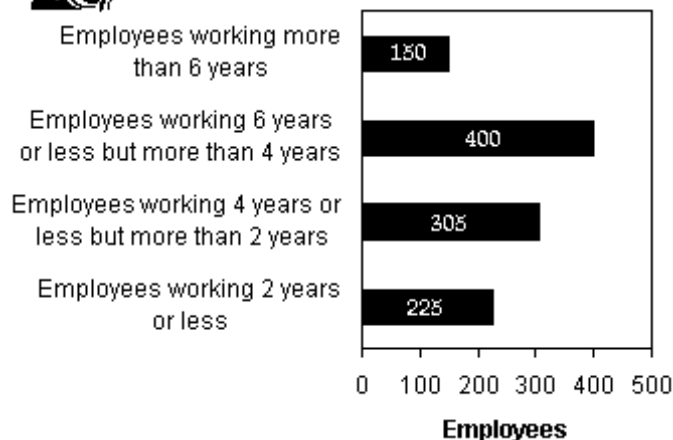
- A) $\frac{5}{3}$ B) $\frac{16}{3}$ C) $\frac{5}{7}$ D) $\frac{16}{21}$

2) $6\frac{1}{6}$ tons to $6\frac{1}{4}$ tons 2) _____

- A) $\frac{25}{4}$ B) $\frac{37}{6}$ C) $\frac{6}{4}$ D) $\frac{74}{75}$

A company, with 1080 total employees, prepares the following analysis for the length of time its employees have been with the company. Use the table to answer the question.

Analysis of the number of years employees have been with their current company



3) What is the ratio of employees working 2 years or less to the total number of employees? 3) _____

- A) $\frac{24}{5}$ B) $\frac{61}{216}$ C) $\frac{216}{61}$ D) $\frac{5}{24}$

Determine if the statement is a proportion.

4) I. $\frac{1}{5} = \frac{3.8}{19}$ II. $\frac{1}{19} = \frac{6.2}{98.8}$ 4) _____

- A) I is a proportion, II is not a proportion. B) I is not a proportion, II is a proportion.
 C) I and II are both proportions. D) Neither I nor II are proportions.

Answer the question.

- 5) During one month, a local fast-food chain served 6016 hamburgers and 844 chicken sandwiches. 5) _____
The next month, the numbers were 7861 hamburgers and 1097 chicken sandwiches. Was the ratio of
hamburgers to chicken sandwiches the same in both months?
A) Yes B) No

Solve each proportion for the given variable.

- 6) $\frac{n}{57} = \frac{9}{19}$ 6) _____
A) $120\frac{1}{3}$ B) 3 C) 36 D) 27

- 7) $\frac{2}{3} = \frac{5}{n}$ 7) _____
A) 15 B) $7\frac{1}{2}$ C) $2\frac{1}{2}$ D) 10

- 8) $\frac{1}{7\frac{1}{2}} = \frac{x}{15}$ 8) _____
A) $\frac{15}{7}$ B) 2 C) $2\frac{1}{2}$ D) 3

- 9) $\frac{x}{8.4} = \frac{0.05}{6}$ Round to the nearest hundredth. 9) _____
A) 1008.00 B) 2.52 C) 14.29 D) 0.07

Solve the problem.

- 10) A box of instant brownies has the list of ingredients shown in the table. Use this information to find 10) _____
the amount of the stated ingredient you would need to make the indicated number of servings.

Ingredient	For 12 Servings
Water	3 tablespoons
Oil	$\frac{1}{4}$ cup
Nuts	$\frac{1}{2}$ cup
Brownie Mix	$2\frac{1}{2}$ cups

Amount of water for 16 servings

- A) $1\frac{1}{3}$ ounces B) $1\frac{1}{3}$ cups
C) $2\frac{1}{4}$ tablespoons D) 4 tablespoons

- 11) The scale on a map is $\frac{1}{4}$ inch to 5 miles. Find the actual distance between two towns for which the distance is represented by 36 inches on the map. 11) _____
- A) 712.5 miles B) 723.85 miles C) 720 miles D) 708 miles

Find percent notation.

- 12) 0.8 12) _____
- A) 800% B) 0.8% C) 80% D) 0.08%

- 13) 0.00087 13) _____
- A) 0.0087% B) 0.087% C) 0.87% D) 0.000087%

- 14) 1 14) _____
- A) 0.1% B) 50% C) 100% D) 0.01%

- 15) $\frac{7}{8}$ 15) _____
- A) 0.875% B) 8.75% C) 0.0875% D) 87.5%

- 16) $\frac{7}{4}$ Round to the nearest tenth, if necessary. 16) _____
- A) 175% B) 218.8% C) 80% D) 17.5%

Find decimal notation.

- 17) 640% 17) _____
- A) 6.4 B) 6.41 C) 64 D) 0.64

- 18) 0.2% 18) _____
- A) 0.002 B) 0.0002 C) 20 D) 0.02

- 19) 22.8% 19) _____
- A) 0.228 B) 0.0228 C) 2.28 D) 0.118

- 20) $99\frac{3}{8}\%$ 20) _____
- A) 0.099375 B) 9.9375 C) 0.99375 D) 9937.5

Find fraction notation and simplify.

- 21) 8% 21) _____
- A) $\frac{2}{25}$ B) $\frac{4}{25}$ C) $\frac{4}{5}$ D) $\frac{1}{25}$

- 22) 0.6% 22) _____
- A) $\frac{3}{1000}$ B) $\frac{3}{250}$ C) $\frac{3}{50}$ D) $\frac{3}{500}$

- 23) 5.45% 23) _____
A) $\frac{109}{2000}$ B) $\frac{109}{2}$ C) $\frac{109}{20}$ D) $\frac{109}{200}$

Translate to an equation and solve.

- 24) What is 25% of 700? 24) _____
A) 1750 B) 1.75 C) 17.5 D) 175

- 25) What is 8.6% of 20? 25) _____
Round to the nearest hundredth if necessary.
A) 172 B) 1.72 C) 0.17 D) 17.2

- 26) What is $3\frac{1}{5}\%$ of 84? 26) _____
Round to the nearest hundredth if necessary.
A) 2.69 B) 269 C) 26.9 D) 0.03

- 27) What percent of 160 is 32? 27) _____
A) 20% B) 21% C) 5% D) 6%

- 28) What percent of 75 is 60? 28) _____
A) 120% B) 125% C) 80% D) 75%

- 29) 73 is 20% of what? 29) _____
A) 3650 B) 14.6 C) 36.5 D) 365

- 30) $7\frac{1}{2}\%$ of what is 60? 30) _____
A) 4.5 B) 800 C) 80 D) 8000

Solve the problem.

- 31) Students at Maple School earned \$378 selling candles. They want to make \$2000 for a club trip. 31) _____
What percent of their goal has been reached?
A) 5% B) 18.9% C) 0.189% D) 50%

- 32) The normal gasoline mileage of a car is 21 mpg. On a smooth road, its mileage is 12% higher. What 32) _____
is its mileage on a smooth road? Round your answer to the nearest tenth.
A) 23.5 mpg B) 21 mpg C) 2.5 mpg D) 50 mpg

- 33) A real estate agent's commission rate is 12%. He receives a commission of \$28,716 on the sale of a 33) _____
home. How much did the home sell for?
A) \$210,584 B) \$32,162 C) \$268,016 D) \$239,300

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Answer Key

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