

Mental Math

Grade 10 Essential Mathematics (20S)

A-1

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. You walk 2 km north, then you turn around and walk 5 km south. How many km and in what direction are you from your starting point?
2. If Evan eats $\frac{3}{5}$ of a pizza and Nick eats $\frac{4}{5}$ of a pizza, how many pizzas do they have to order so that both can eat as much as they like?
3. Write $\frac{6}{2}$ in simplest terms.
4. Knowing 50% of 680 is 340, evaluate 25% of 680.
5. If you buy a shirt for \$8 and jeans for \$32, how much do you spend altogether (before taxes)?

Answers

3 km to the south

2

$$\frac{3}{1} = 3$$

170

\$40

Unit Questions

6. Convert 47.5% into a decimal number.
7. Change 17% to a decimal number.
8. Write the decimal form of 4.32%.

0.475

0.17

0.0432

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-2

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. Rank the numbers highest to lowest: 0.5, 0.05, 0.3, 0.09, 0.25
2. Evaluate the following: $2 - 3 + 6 \times 2 - 5 \times 4$
3. Solve for i : $4i + 3 = 15$
4. Is an angle that measures 140° acute, right, obtuse, straight, or reflex?
5. Write the next two numbers in the pattern: 1, 2, 4, 8, _____, _____

Answers

0.50, 0.30, 0.25,
0.09, 0.05

-9

3

obtuse

16, 32

Unit Questions

6. Convert 0.56 to a percent.
7. Write the percent form of the number 0.034.
8. Change 0.0025 to percent form.

56%

3.4%

0.25%

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-3

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. A volleyball team trains for 2 hours and 30 minutes three times per week. How many minutes per week does the team train?
2. An octave of music includes 8 notes. If you were to go up half an octave, how many notes is that?
3. You walk a distance of 2 km north, 3 km east, and then 2.5 km to the northwest. What total distance did you walk?
4. Write the percent as a decimal: 62%
5. You buy some popcorn for \$3.80. You give the cashier a \$5 bill. How much change do you receive?

Answers

450

4

7.5 km

0.62

\$1.20

Unit Questions

6. Convert $\frac{3}{4}$ to a percent.
7. Write $\frac{1}{8}$ in percent form.
8. Your salary is 10 dollars per hour. You get a raise of 0.40 dollars per hour. What is the salary increase as a percent?

75%

12.5%

4%

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-4

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. You are going to the store to buy a drink with \$2.05 in your pocket. If a drink costs \$1.75, will you be able to buy one?
2. Which is larger, 0.76 or 0.07?
3. Solve for g : $3 - g = 15$
4. Is an angle with a measurement of 86° acute, right, obtuse, straight, or reflex?
5. Complete the pattern: 4, 1, -2, _____, _____

Answers

Yes

0.76

-12

acute

-5, -8

Unit Questions

6. Bernard works 30 hours at a rate of 25 dollars per hour. What is his gross pay?
7. Marcel's annual salary is \$72,000. What is his monthly salary?
8. Erika earns a salary of \$1500 per week. What is her annual salary?

\$750

\$6000

\$78,000

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-5

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. You take swimming lessons 4 days out of 5. What percent does this represent?
2. A basic calculator has 6 rows and 5 columns of buttons. How many buttons does it have in total?
3. Three students receive their marks for a project. Jane found her mark as a decimal, 0.62; John calculated his mark as a percent, 73%; Jean got $\frac{12}{16}$. Who got the best mark?
4. What value is larger, 80% or $\frac{15}{20}$?
5. If $0.33\bar{3} = \frac{1}{3}$, then what does $0.66\bar{6}$ equal?

Answers

80%

30

Jean

80%

$\frac{2}{3}$

Unit Questions

6. What value represents 1% of \$400,000?
7. You receive a commission of 20% for all your sales. You sell \$15,000 of goods. What amount of commission will you receive?
8. Carole sells \$2400 worth of hats. If each hat costs \$40, how many hats did Carole sell?

\$4000

\$3000

60

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-6

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. Candy regularly costs \$40. What is the cost after a discount of 40%?
2. Rewrite the following fraction in lowest terms: $\frac{18}{27}$
3. There is a 50% discount on all candy at the store the day after Hallowe'en. If it cost you \$30 to buy candy before Hallowe'en, how much would you spend if you bought the same candy after Hallowe'en?
4. What is the mean of 3, 4, 6, and 7?
5. Jamie is twice as old as Dan. Dan is 3 times as old as Kim. If Kim is 4 years old, how old is Jamie?

Answers

\$24

$\frac{2}{3}$

\$15

5

24

Unit Questions

6. You worked 7 hours each day of the week except Sunday. How many hours did you work in the week?
7. A normal workweek is 40 hours. If you work 52 hours, how many hours of overtime did you work?
8. How many more hours must you add to 5.25 hours to have a total of 8 hours?

42

12

2.75

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-7

Unit A: Gross Pay, Time Cards, and Percents

General Questions

1. There are 60 candies in a box. If you eat one candy each day, how many candies are there in the box after 8 full weeks?
2. Complete the following pattern: 60, 75, _____, 105, _____
3. Is an angle of 235° an acute, an obtuse, a right, a straight, or a reflex angle?
4. Evaluate: $4 - 6 + 2 \times (3 - 8)$.
5. There are 3 pairs of socks in a package. If the whole package costs \$6, how much does it cost per pair of socks?

Answers

4

90, 120

reflex

-12

\$2

Unit Questions

6. Evaluate: $10.75 + 27.50$
7. How many hours are there between 9:00 a.m. and 5:00 p.m.?
8. You leave the house at 7:30 a.m. You return to the house at 3:45 p.m. How many minutes are you gone from the house?

38.25

8

495

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

A-8

Unit A: Gross Pay, Time Cards, and Percents

General Questions

Answers

1. What is 10% of 500?

50

2. What is 5% of 500?

25

3. What is 15% of 500?

75

4. Paul lives 2 km to the south of your house. Pierre lives 4 km to the north of your house. What is the distance between the houses of Paul and Pierre?

6 km

5. You give the cashier a \$10 bill to pay for your lunch. If the total for your lunch is \$7.60, how much change will you get back?

\$2.40

Unit Questions

6. Jack and John are paid by commission. Jack receives 9% of \$5000 of sales. John receives 8% of \$6000 of sales. Who receives more and by how much?

John; \$30

7. Marc earns \$20; Jean earns twice as much as Marc; Lionel earns twice as much as Jean. How much do Marc, Jean, and Lionel earn in total?

\$140

8. Tom earns a weekly base salary of \$500. If Tom works 48 weeks per year, what is Tom's annual base salary?

\$24,000

Other Questions

9.

10.