

Mental Math

Grade 10 Essential Mathematics (20S)

C-1

Unit C: Measurement

General Questions	Answers
1. What is the total distance travelled by a car if it has followed routes with the following lengths: 300 km, 150 km, 800 km, 200 km, and 500 km?	1950 km
2. Your friends share and eat 45 candies. If 13 candies remain, what fraction of candies were eaten?	$\frac{32}{45}$
3. There is a great sale on clothes at 30% off the marked price. If you are buying a hoodie that is priced at \$40.00, how much will you save?	\$12
4. What is the range of the following numbers: 2, 6, 4, 8, 7, 13, 11?	11
5. Solve for k : $\frac{k}{8} = 2$	16
Unit Questions	
6. To obtain the answer when you multiply 5.65 by 100, how many places and in what direction does the decimal point move?	2 places to the right
7. When you divide a number by 10, is the decimal point in the answer moved to the right or to the left?	1 place left
8. When dividing by 1000, how many places is the decimal point moved?	3
Other Questions	
9.	
10.	

Mental Math

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C-2

Unit C: Measurement

General Questions

Answers

1. Fill in the missing terms in the following pattern: 0, 3, _____, 9, 12, _____
2. What is 10% of 760?
3. What is 5% of 760?
4. Your sales for the week totalled \$760. You receive a commission of 15% of your total sales. What is the amount of your commission?
5. You have 4 different pairs of pants and 6 different shirts. How many outfits can you make consisting of a pair of pants and a shirt?

6, 15

76

38

\$114

24

Unit Questions

6. Write 123.4 using scientific notation.
7. What is the value of 7.4×10^3 using decimal notation?
8. What is the value of 6.8×10^{-2} using decimal notation?

1.234×10^2

7400

0.068

Other Questions

9.

10.

Mental Math

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C-3

Unit C: Measurement

General Questions	Answers
1. In a bag, there are 5 yellow marbles and 3 red marbles. Write a fraction to represent the number of yellow marbles in the bag.	$\frac{5}{8}$
2. Usain Bolt can run 100 m in 10 s. What is his average speed?	10 m/s
3. List the factors of 12.	1, 2, 3, 4, 6, 12
4. The ticket price of a shirt is \$44.00. If you buy the shirt, what amount of GST (5%) do you owe?	\$2.20
5. Estimate the value of the CPP deduction if your gross salary is \$1400 and the Government of Canada deducts 4.95% of your salary for CPP.	$\approx 5\% = \$70$
Unit Questions	
6. Convert 900 millilitres (mL) to litres (L).	0.9
7. Convert 5372 m to km.	5.372
8. Convert 72.5 m to cm.	7250
Other Questions	
9.	
10.	

Mental Math

Grade 10 Essential Mathematics (20S)

C-4

Unit C: Measurement

General Questions

1. If it rains 10 mm, how much rain is that in centimetres?
2. A marathon is 26.4 miles. How long is a half marathon?
3. Express the fraction as a decimal: $4\frac{3}{5}$
4. Movies on DVD cost \$18.99 each. Do you have enough money to buy 2 movies if you have \$35.00?
5. Penelope is two times smaller than Carson. Carson is one inch shorter than Zachary. Who is the tallest?

Answers

1

13.2 miles

4.6

No

Zachary

Unit Questions

6. How many inches are equal to 3 feet?
7. How many pounds are the same as 48 ounces?
8. There are 4 quarts in a gallon, 2 pints in a quart, and 2 cups in a pint. How many cups are in a gallon?

36

3

16

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

C-5

Unit C: Measurement

General Questions	Answers
1. If a desk is 90 cm high, how tall is it in metres?	0.9
2. Your neighbour just had a baby. The baby is 18" long. How long is the baby in feet?	1.5
3. The clock on the wall ticks every second. How many times does it tick in 10 minutes?	600
4. Write this number in scientific notation: 0.000 243 5.	2.435×10^{-4}
5. You buy 6 doughnuts at \$0.60 each and pay the cashier with a \$5 bill. How much change will you receive?	\$1.40
Unit Questions	
6. Your friend tells you that an object measures $2\frac{3}{8}$ inches. How many eighths of an inch is the object?	$\frac{19}{8}$
7. The measure of an object is $\frac{53}{16}$ inches. Write this measure as a mixed fraction.	$3\frac{5}{16}$
8. Which measure is larger, $2\frac{5}{8}$ inches or $\frac{17}{8}$ inches?	$2\frac{5}{8}$
Other Questions	
9.	
10.	

Mental Math

Grade 10 Essential Mathematics (20S)

C-6

Unit C: Measurement

General Questions

1. An anaconda snake can be up to 24 feet in length. How long is it in yards?
2. Solve for m : $2 - m = 14$
3. Fill in the blanks for the following pattern: 0, 1, 4, 9, _____, 25, _____
4. Including you, there are 16 players on your team. Each player buys a "freezie" for \$2.50. How much do the "freezies" cost for the whole team?
5. Last week, Ryan worked 46 hours. If he is paid 11 dollars per hour, what was his salary last week?

Answers

8

-12

16, 36

\$40.00

\$506.00

Unit Questions

6. What measure is larger, 3 cm or 25 mm?
7. How many millimetres is equal to 5.8 cm?
8. How many centimetres is equal to 149 mm?

3 cm

58

14.9

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

C-7

Unit C: Measurement

General Questions

1. Dino has three times as many sisters than he has brothers. If he has 2 brothers, how many kids are in the family?
2. Six boxes, each measuring 80 cm in height, are stacked one above the other. What is the total height (in metres) of all 6 boxes?
3. There are 24 people in a room. If $\frac{1}{6}$ of the people are younger than 18 years, how many people are 18 or older?
4. Write the following improper fraction as a mixed fraction: $\frac{29}{9}$
5. What type of angle has a measure of 270° ?

Answers

9

4.80

20

$3\frac{2}{9}$

reflex

Unit Questions

6. There are 2.2 pounds in one kilogram. Approximately how many kilograms is 17 pounds of meat?
7. There are approximately 4.5 litres in one Canadian gallon. How many litres are equal to 4 gallons?
8. If 6 miles is approximately 9.6 km, how many kilometres are equal to 12 miles?

≈ 8

18

19.2

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

C-8

Unit C: Measurement

General Questions

1. You and 6 of your friends are at a fondue restaurant. The bill comes to \$42. If you divide the cost evenly, how much will you pay each?
2. Complete the pattern: _____, _____, 1, 0.5, 0.25
3. Solve for a : $18 + a = 23$
4. In a test there are questions worth 3 points and 5 points when answered correctly. If Jean had 39 points, what maximum number of 5-point questions did he answer correctly?
5. You leave home at 8:30 a.m. and you return at 7:00 p.m. How many minutes were you away from home?

Answers

\$6

4, 2

5

6

630

Unit Questions

6. Add: $2.1 \text{ cm} + 0.05 \text{ cm} + 3.9 \text{ cm}$
7. How many tenths are in 12 units?
8. Add: $0.1 \text{ cm} + 0.2 \text{ cm} + 0.3 \text{ cm} + 0.4 \text{ cm} + 0.5 \text{ cm}$

6.05

120

1.5 cm

Other Questions

9.

10.

Mental Math

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C-9

Unit C: Measurement

General Questions	Answers
1. A bag contains 30 red beads and 27 yellow beads. If there are 80 beads in the bag, how many beads are neither red nor yellow?	23
2. Solve for r : $5 + r = -4$	-9
3. Which is larger: 436% or $\frac{18}{5}$?	436%
4. Estimate the taxes, at 12%, of a pair of shoes that cost \$74.89.	\approx \$9
5. A loonie is approximately 2.5 cm across. Convert to inches.	about 1
Unit Questions	
6. Add: $11 \text{ mm} + 0.5 \text{ mm} + 0.42 \text{ mm}$	11.92 mm
7. A micrometer is used to measure a very small diameter. On the tool, 0.5 mm is divided into 50 smaller divisions. What is the size of each smaller division?	0.01 mm
8. How many centimetres are equivalent to 25 mm?	2.5
Other Questions	
9.	
10.	

Mental Math

Grade 10 Essential Mathematics (20S)

C-10

Unit C: Measurement

General Questions

1. The body of a daddy-long-legs spider is about 0.7 cm long. How long is this in mm?
2. Team A has won 5 out of their last 9 games. Team B has won 4 out of their last 7 games. Which team has won a greater percentage of their games?
3. Write as an improper fraction: $1\frac{3}{16}$
4. You bought a hot dog for \$3.75, some fries for \$2.00, a drink for \$2.25, and an apple for \$1.50. How much did you spend?
5. Your employer gives you \$2.50 for each shirt and \$3.00 for each pair of pants that you make. If you make 20 shirts and 13 pairs of pants, how much money will you receive?

Answers

7

Team B

$\frac{19}{16}$

\$9.50

\$89.00

Unit Questions

6. Evaluate: $1.8C + 32$ if $C = 5$.
7. Evaluate: $1.8C + 32$ if $C = 30$.
8. You can travel 1440 km using 120 litres of gasoline. How many kilometres can you travel on 1 litre of gasoline?

41

86

12

Other Questions

9.

10.

Mental Math

Grade 10 Essential Mathematics (20S)

C-11

Unit C: Measurement

General Questions	Answers
1. A waffle iron costs \$40. If a discount of 20% is offered, how much will the waffle iron cost?	\$32
2. If 5% of 260 is 13, what is 5% of 520?	26
3. Evaluate: $3 + 9 - 2 \times 12 \div 3$	4
4. Represent 75% of 2 hours, in minutes.	90
5. Convert: 300 m = _____ km	0.3
Unit Questions	
6. Your foot measures 30 cm. If you use your foot to measure an approximate distance of 120 metres, how many of your feet will you count off?	400
7. What is the value of C if, $C = 2\pi d$, $\pi = 3.14$, and $d = 10$.	62.8
8. Julie is 1.50 m tall. Marc estimates that the tree in front of her is 5 times taller than Julie. What is the approximate height of the tree?	7.50 m
Other Questions	
9.	
10.	

