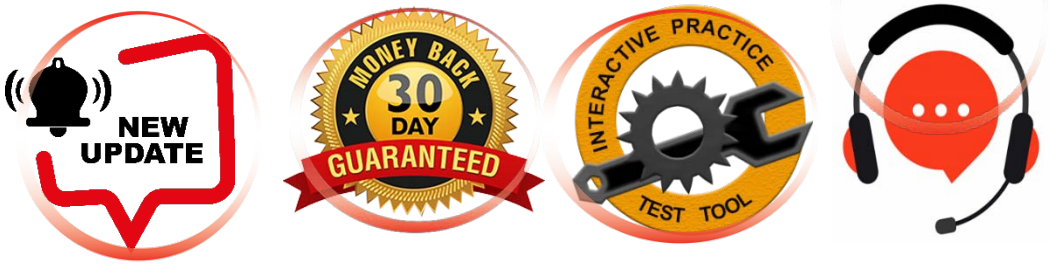
K-12
CC-G6-Math
Common Core Grade 6 Mathematics

For More Information – Visit link below:
https://www.examsempire.com/

Product Version

1. **Up to Date products, reliable and verified.**
2. **Questions and Answers in PDF Format.**



Latest Version: 6.0

Question: 1

A classroom has three girls for every boy. Write the ratio of the number of girls to the number of boys.

a. 1:1
b. 1:3
c. $3:\frac{1}{3}$
d. 3:1

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Explanation:
A ratio is a relationship between two numbers of the same type. For instance, if the ratio of apples to oranges in a basket is 3:2, then the basket contains 3 apples for every 2 oranges. In the given problem, we are looking for ratio between the numbers of girls and boys. Since we are told that there are three girls for every one boy, the correct ratio is 3:1.

Question: 2

A pancake recipe calls for 2 cups of all-purpose flour to make 20 pancakes. How many cups of flour are used to make each pancake?

a. $\frac{1}{10}$ cups
b. 9 cups
c. 10 cups
d. 18 cups

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Explanation:
In the recipe, the ratio of the number of cups of flour to the number of pancakes is 2:20. To find the unit rate (in this case, the amount of flour per pancake) write this ratio as a fraction. The result is $\frac{2}{20}$, which can be simplified to $\frac{1}{10}$. Therefore, $\frac{1}{10}$ cup of flour is used to make each pancake.

Question: 3

A man can read 2 pages every 3 minutes. The table below shows the number of pages he can read after four different periods of time.

Pages	Minutes
2	3
4	6
6	9
8	

What is the missing value in the table?

A. 10
B. 12
C. 15
D. 18

Answer: B

Explanation:
You should notice that the four numbers in the left column (2, 4, 6, 8) increase by 2 from top-to-bottom. At the same time, the numbers in the right column (3, 6, 9) increase by 3 from top-to-bottom. Since 9 + 3 = 12, the missing value is 12.

Question: 4

A certain car factory can produce 9 cars every 4 minutes on an assembly line. At this rate, how many cars will it produce in 20 minutes?

A. 36 cars
B. 40 cars
C. 45 cars
D. 48 cars

Answer: C

Explanation:
To find the average rate of the factory, divide the number of cars it can produce by the time it takes:

$$\frac{9 \text{ cars}}{4 \text{ minutes}} = 2.25 \text{ cars per minute}$$

Therefore, the average rate is 2.25 cars per minute. To determine how many cars it will produce in 20 minutes, multiply 2.25 by 20:
2.25 cars per minute x 20 minutes = 45 cars

Question: 5

What is 20% of 60?

A. 12
B. 15
C. 18
D. 20

Answer: A

Explanation:

A percent represents a part out of 100. For example, 20% is equivalent to 20 out of 100, or $\frac{20}{100}$.

To find 20% of 60, multiply $\frac{20}{100}$ by 60:

$$\frac{20}{100} \times 60 = 12$$

Question: 6

An object that weighs one pound has a mass of about 0.454 kg. What is the weight, in pounds, of an object with a mass of 3 kg?

A. 0.1513 lb
B. 1.362 lb
C. 2.5461b
D. 6.6081b

Answer: D

Explanation:

We are told that the ratio of pounds to kilograms is 1:0.454. To convert kilograms to pounds, write this ratio as a fraction with pounds in the numerator (i.e. on top), and then multiply that fraction by the mass in kilograms:

$$\frac{1\text{lb}}{0.454\text{kg}} \times 3\text{kg} = \frac{3}{0.454}\text{lb}$$
$$\approx 6.608lb$$

Question: 7

A recipe calls for 1/3 of a cup of cocoa powder to make a pan of brownies. How many pans can you make with 1/4 of a cup of cocoa powder?

A. 1/2 of a pan
B. 3/4 of a pan
C. 4/3 of a pan

D. 2 pans

Answer: B

Explanation:
Set up a proportion: if one pan calls for 1/3 of a cup, how many pans call for % of a cup?

$$\frac{1\ pan}{1/3\ cup} = \frac{x\ pans}{1/4\ cup} \xrightarrow{yields} \frac{1}{4} = \frac{1}{3}x$$

Therefore, to determine how many pans you can make, divide 1/4 by 1/3:

$$\frac{1}{4} \div \frac{1}{3}$$

To divide a number by a fraction, (1) change the division sign to a multiplication sign and (2) invert the (second) fraction by exchanging its numerator and denominator. Then perform the multiplication normally:

$$\frac{1}{4} \div \frac{1}{3} = \frac{1}{4} \times \frac{3}{1}$$
$$= \frac{3}{4}$$

Therefore, you can make 3/4 of a pan.

Question: 8

Calculate 825 ÷ 33.

A. 24
B. 25
C. 34
D. 35

Answer: B

Explanation:

Perform long division to divide the dividend (in this case, 825) by the divisor (33) using a division sign called a tableau:

$$33 \overline{)\,825}$$

Start by trying to divide the first digit in the dividend, 8, by 33. Since it is too small, add the next digit. Dividing 82 by 33 gives you 2 with a remainder. Put the 2 at the top of the tableau above the 2, and then multiply 33 by 2 and subtract to find the remainder:

$$\begin{array}{r} 2 \\ 33\,)\,825 \\ -\;\underline{66} \\ 16 \end{array}$$

Next, bring down the next digit in 825 (which is a 5), and repeat the last step by dividing 165 by 33:

$$\begin{array}{r} 25 \\ 33\,)\,825 \\ -\;\underline{66}\downarrow \\ 165 \\ -\;\underline{165} \\ 0 \end{array}$$

Therefore, 825 ÷ 33 = 25.

Question: 9

Calculate 26 x 105-40.

A. 1690
B. 2560
C. 2690
D. 2770

Answer: C

Explanation:

By order of operations (PEMDAS), perform any multiplication or division before any addition or subtraction. So, perform the multiplication first:

$$\begin{array}{r} 105 \\ \times\ 26 \\ \hline 630 \\ +\ 2100 \\ \hline 2730 \end{array}$$

Therefore, $26 \times 105 - 40 = 2730 - 40$. Perform the subtraction:

$$\begin{array}{r} 2730 \\ -\ 40 \\ \hline 2690 \end{array}$$

Thus, $26 \times 105 - 40 = 2690$.

Question: 10

What is the greatest common factor (GCF) of 30 and 45?

A. 3
B. 5
C. 15
D. 90

Answer: C

Explanation:

A factor of an integer is a number that divides into it evenly (i.e. without a remainder). For example, the factors of 12 are 1, 2, 3, 4, 6, and 12, and the factors of 16 are 1, 2, 4, 8, and 16. The greatest common factor (GCF) of two integers is the largest (or greatest) integer that is a factor of both numbers. For example, the common factors of 12 and 16 are 1, 2, and 4, so their GCF is 4.

One way to find the GCF of 30 and 45 is to list their factors, and then underline the common factors:

30: 1, 2, 3, 5, 6, 10, 15, 30

45: 1, 3, 5, 9, 15, 45

Since 15 is the largest number that appears in both lists, the GCF of 30 and 45 is 15.

Thank You for Trying Our Product

Special 16 USD Discount Coupon: NSZUBG3X

Email: support@examsempire.com

Check our Customer Testimonials and ratings available on every product page.

Visit our website.

https://examsempire.com/