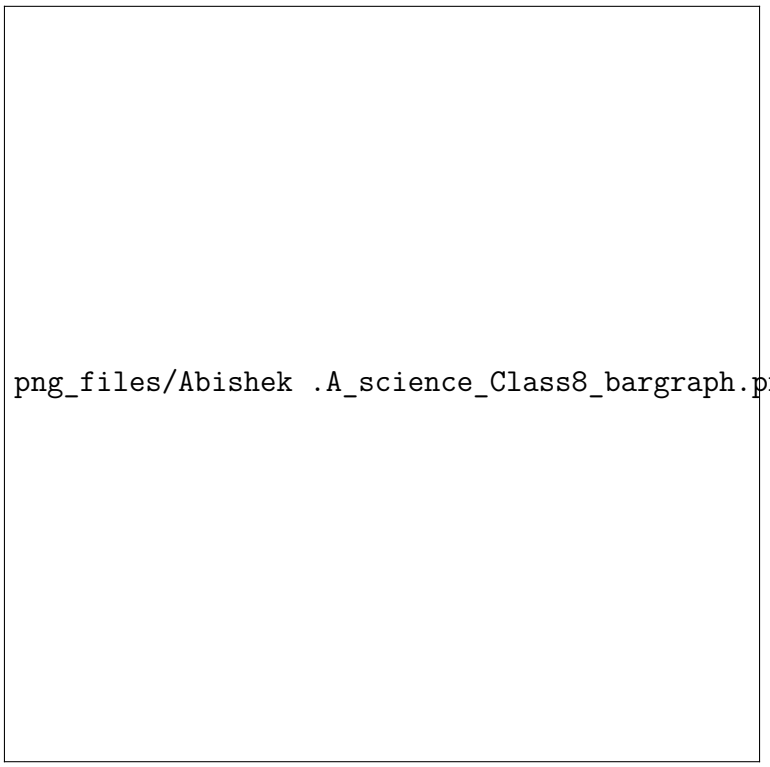
Learn Basics Workbook - Math

LaPIS Diagnostic Test Report - Math

Name	:	**Abhishek .A**
Class	:	**8**
Section		**A**
School	:	**Lotus Public School**

Abishek .A's Performance Report



Abishek .A's Study Planner

Date	Topic Planned	Q Number	Teacher Remark	Teacher Sign	Parent Sign

Teacher's Feedback to Student

Class Teacher Signature

Principal Signature

Algebra

Topics	To be Improved
Comparing ratio	Proportion
What is ratio?	Basics of ratio
Expression with variables	Expression with variables
Variables	Identifying variables
Simple expression(operation)	Using expressions practically

Question: C6MDT22A

Find the missing number?

30 : 10 :: $\square$: 1

Answer:

$$\frac{30}{10} = \frac{\square}{10}$$

By further division we get,

30 : 10 : : $\square$: 1

Question: C6MDT22B

Find the value of y.

12 mangoes : 3 mangoes : : Rs.60 : Rs.y

Answer:

12 mangoes : 3 mangoes = $\frac{\square}{\square}$

12 mangoes : 3 mangoes : : Rs.60 : Rs.y = $\frac{\square}{\square} = \frac{\square}{y}$

By further division, we get y = Rs._____

Question: C6MDT22C

Karun earns Rs.35000 per month. Determine if the ratio of Karun's monthly salary : Karun's two month salary : : Karun's half year income : Karun's annual income is proportional.

Answer:

Karun's salary per month = Rs. _____

Karun's two month salary = Rs._____

Half year = _____months
Karun's half year income = Rs._____ x _____ = _____
1 year = _____ months
Karun's annual income = Rs._____x _____ = _____
Checking whether the ratio of Karun's monthly salary : Karun's two month salary : : Karun's half year income : Karun's annual income is proportional.

Question: C6MDT18A

Which of the below given boxes are equal to the ratio 3 : 5

60:100	50:30	18:30	12:25

Answer:

Comparing the two quantities in terms of 'how many times'. This comparison is known as the _____

$60 : 100 = \frac{\square}{\square}$

By repeated division we get, __ : __

$18 : 30 = \frac{\square}{\square}$

By repeated division we get, __ : __

$50 : 30 = \frac{\square}{\square}$

By repeated division we get, __ : __

$12 : 25 = \frac{\square}{\square}$

By repeated division we get, __ : __

Question: C6MDT18B

Find the ratio of 150cm to 1.2m in simplest form.

Answer:

1 meter = _____
1.2 meter = _____ x _____ cm
1.2 meter = _____cm
150cm : 1.2m = 150 : _____

By repeated division we get, _____ : _____

Question: C6MDT18C

The height and base of a triangular sign board is 32cm and 40cm respectively. What is the ratio of

height to the base ?

Answer:

Height of a triangular sign board = _____

Base of a triangular sign board = _____

Ratio of height to base = _____ : _____

By repeating division, we get _____ : _____

Question: C6MDT19A

Determine if the following are in proportion.40, 240, 100, 600

Answer:

40 : 240 : : 100 : 60

$$\frac{\square}{\square} = \frac{\square}{\square}$$

By repeated division, we get

$$\frac{\square}{\square} = \frac{\square}{\square}$$

These numbers are proportional / not proportional

Question: C6MDT19B

The ratio of student who chose Sanskrit as their second language to French as their second language is 13 : 17 where, 85 students chose French as their second language. How many students chose Sanskrit as their second language?

Answer:

The ratio of student choose Sanskrit : The ratio of student choose French = ___ : ___

Number of students who choose French as their second language is _____

$$\frac{\square}{\square} = \frac{\square}{85}$$

Number of students who choose Sanskrit as their second language is _____

Question: C6MDT19C

Determine if the following ratios form a proportion.
120grams to 1.2kg and 6 sec to 1 minute.

Answer:

1 kg = _____ grams
1.2 kg = 1.2 x _____
1.2 kg = _____ grams
120 gram : 1.2kg = _____ : _____
1 minute = _____ seconds
6 sec : 1 minute = _____ : _____

These ratios are proportional/ not proportional

Question: C6MDT15A

The weight of each apple is given below. Find the total weight of all the apples.

Answer:

Total given number of apples are _____.
The weight of each apple are _____, _____, _____.
Total weight of the given apples = Apple 1 (_____) Apple 2 (_____) Apple 3.

Question: C6MDT15B

Express the statement.

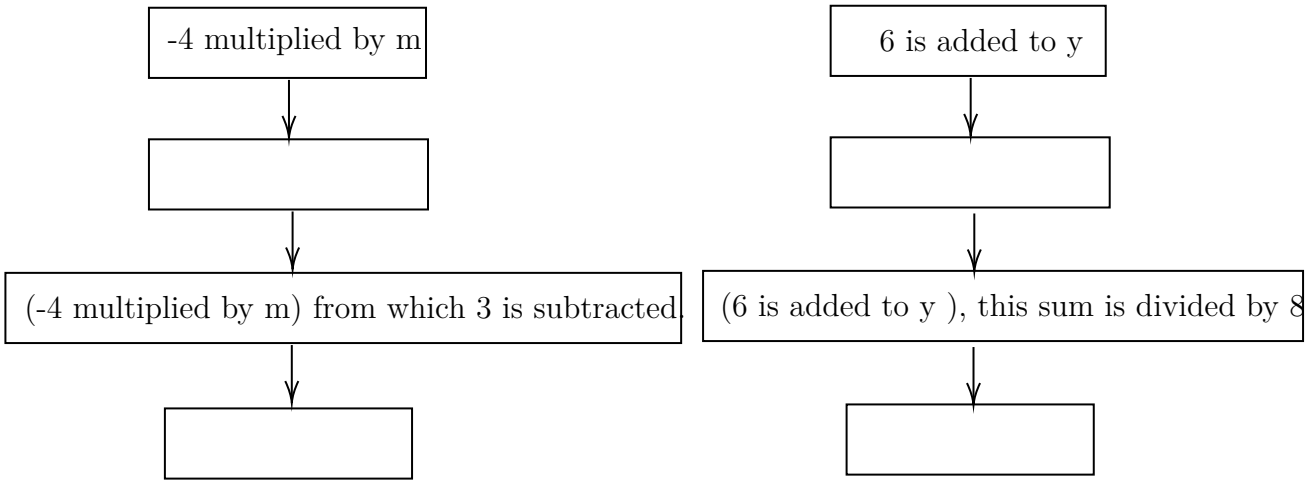
(i) - 4 is multiplied by m from which 3 is subtracted.

(ii) 6 is added to y, this sum is divided by 8.

Answer:

i. The operations used in this statement are _____, _____

ii. The operations used in this statement are _____, _____



Question: C6MDT15C

Arun is 'x' years old. Karan is 2 years less than twice the age of Arun. Express Karan's age.

Answer:

Age of Arun is _____.
Twice the age of Arun can be written as _____.
Karan's age = 2 less than twice the age of Arun = _____ .

Question: C6MDT14A

Pick the correct answer.
_____ is an alphabet that represents an unknown number or quantity.
(Variable/Expression).

Answer:

Unknown values are represented by an alphabet or a symbol is called as _____ and it's value is not _____.

Question: C6MDT14B

Tick the boxes which have expressions with a variables

20 + 3 - 23	2x + 3 + 20	$11\frac{3}{5}y$ + 33	12x (6 - 4) = 24

Answer:

The variables are denoted by _____ (alphabets/ symbol / number).
The expressions in the given boxes are _____.
The expression which contains variable are _____.

Question: C6MDT14C

There are x number of students in a classroom where 14 students went for swimming class, 9 students went for music class, 3 students were in library. Write an expression for the remaining number of students in the classroom.

Answer:

Total number of students in a class room are _____.
The students who went for swimming class are _____
Students went for music class are _____
The students went to library are _____
Number of remaining students = Total number of students in a class room (-) Total number of students outside the class

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Question: C6MDT17A

Q17A.png

Answer:

The total distance is _____.
A man covered _____ kilometers from the starting point initially.

Remaining distance to reach ending point = Total distance ___ initial distance covered.
Remaining distance = _____.

Question: C6MDT17B

There are a total of 120 toffees in two jars. One jar is bigger than the other and it contain 86 toffees. How many toffees are there in the small jar.

Answer:

The total number of toffees are _____.
Bigger jar contains _____ toffees.
Number of toffees in small jar = Total number of toffees _____ (×/÷/-) Number of toffees in big jar.

Question: C6MDT17C

A cobbler mends 12 shoes a day except sunday. On Sunday he mends only 4 shoes. What is the total number of shoes the cobbler mends in a week.

Answer:

Total number of days in a week _____.
The cobbler mends _____ shoes per day(except Sunday).

Total shoes mends on a week (except Sunday) = _____ × _____
= _____.

On Sunday he mends only _____.

Total number of shoes the cobbler mends in a week = shoe mends in other days
= _____ shoe mends on Sunday
Total number of shoes the cobbler mends in a week = _____.

Basic Arithmetic

Topics	To be Improved
Basic Arithmetic	Multiplication, Division, Addition and Subtraction

Question: C6MDT27A

Solve : 8 x 10 x 11

Answer:

Changing the grouping in which we multiply numbers does not change the product.
(a x b) x c = _____
This property is called _____
8 x 10 = _____
___ x 11 = _____
8 x 10 x 11 = _____

Question: C6MDT27B

Solve :

1562 × 48

Answer:

$$\begin{array}{r} 1\ 5\ 6\ 2 \\ \times\quad\ 4\ 8 \\ \hline \\ \hline \\ \hline \end{array}$$

Therefore, 1562 × 48 = _____

Question: C6MDT27C

Fill in the blanks with the correct answer.
156 × ___ = 1872

14	13	12	15

Answer:

$$\begin{array}{r} 1\ 5\ 6 \\ \times\quad 1\ 4 \\ \hline \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 1\ 5\ 6 \\ \times\quad 1\ 3 \\ \hline \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 1\ 5\ 6 \\ \times\quad 1\ 2 \\ \hline \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 1\ 5\ 6 \\ \times\quad 1\ 5 \\ \hline \\ \hline \\ \hline \end{array}$$

Therefore, 156 × ___ = 1872

Question: C6MDT25A

Solve $\frac{25 \times 12}{5}$

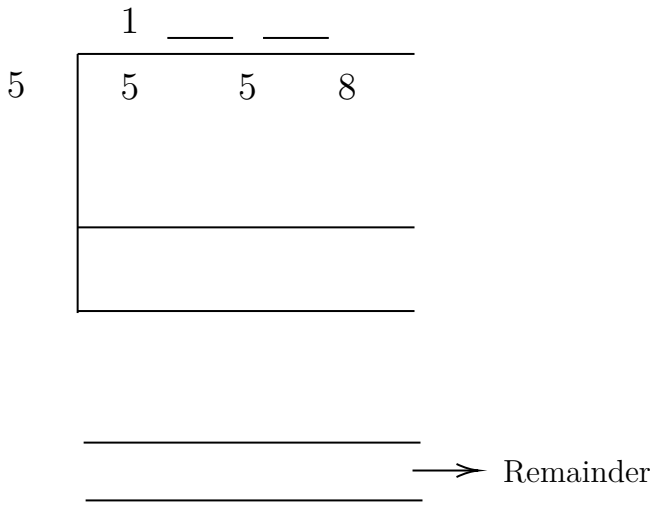
Answer:

This can be also written as $\frac{25}{5} \times 12$
25 is divided by 5 and the answer is multiplied by _____
The final answer is _____

Question: C6MDT25B

What is the remainder of 558 ÷ 5 ?

Answer:



Question: C6MDT25C

Solve : $20 \times (30 + 270) \div 4$

Answer:

Add the numbers given in the bracket = ___ + ___ = _____

Multiply the sum with _____ = _____ × _____ = _____

Divide the product with ___ = $\frac{\square}{\square}$ = ___

B – Bracket
O – Order
D –
M –
A –
S -

Question: C6MDT23A

Answer the following questions.

i. 345 + 126 = _____

ii. 1290 - 347 = _____

Answer:

	3	4	5		1	2	9	0
(+)	1	2	6	(-)		3	4	7

Question: C6MDT23B

Fill in the blanks with correct symbol.(> or < or =)

(569 - 129) ☐ (580 - 140)

Answer:

	5	6	9			5	8	0
(-)	1	2	9	Symbol	(-)	1	4	0

Question: C6MDT23C

In a village there are 6453 villagers, in which 1967 are women, 1509 children and remaining are the men. Find the number of men in the village ?

Answer:

Total number of villagers = _____

Number of women = _____

Number of children = _____

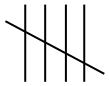
Number of men = (_____) ˘ (_____ + _____) = _____

Data Handling

Topics	To be Improved
Tally marks	Basics of Tally marks

Question: C6MDT38A

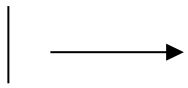
The fifth mark in a group of five marks should be used as a cross, as shown by

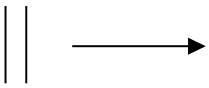


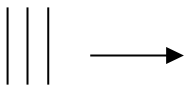
These are called _____

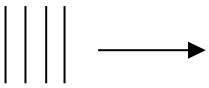
Answer:

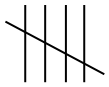
A _____ is a collection of numbers gathered to give some information.

 represents = _____

 represents = _____

 represents = _____

 represents = _____

 represents = _____

Question: C6MDT38B

There are 12 students in a class. Represent this with tally marks.

Answer:

Tally marks for 1 - _____, 2 - _____, 3 - _____, 4 - _____, 5 - _____.
There are _____ students in the class.
In tally marks it is represented as _____

Question: C6MDT38C

Fill the tally marks for the number of vehicles in an apartment.

Vehicles	Tally Marks	Number of vehicles
Cycle		10
Bike		18
Car		14

Answer:

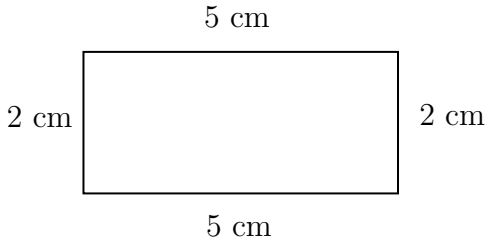
There are _____ cycles. Tally mark = _____
There are _____ bikes. Tally mark = _____
There are _____ cars. Tally mark =_____

Geometry

Topics	To be Improved
Area	Area of rectangle
Classification of triangles	Types of triangles
Quadrilaterals - polygon	Geometrical ideasof Quadrilaterals
Lines of Symmetry	Lines of Symmetry

Question: C6MDT29A

What is the area of this rectangle ?



Answer:

Length of the rectangle = _____

Breadth of the rectangle = _____

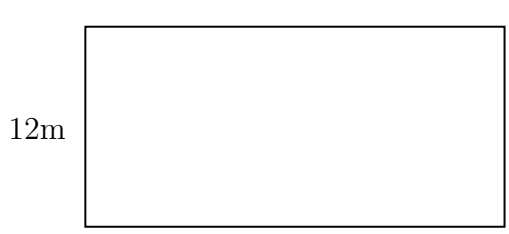
Area of the rectangle = _____ x _____

= _____ x _____

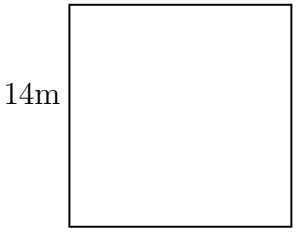
Area of the rectangle = _____ cm^2

Question: C6MDT29B

Which of the following rectangle has an area equivalent to 280 sq. m.



(i)



(ii)

Answer:

Rectangle (i)

Length of the rectangle = _____

Breadth of the rectangle = _____

Area of the rectangle = _____ x _____

= _____ x _____

Area of the rectangle = _____ (= / ≠) 280 sq.m

Rectangle (ii)

Length of the rectangle = _____

Breadth of the rectangle = _____

Area of the rectangle = _____ x _____

= _____ x _____

Area of the rectangle = _____ (= / ≠) 280 sq.m

Question: C6MDT29C

Area of a rectangular street is 2640m^2 and its length = 44m . What is the breadth of the street?

Answer:

Length of the rectangle street = _____

Breadth of the rectangle street = _____

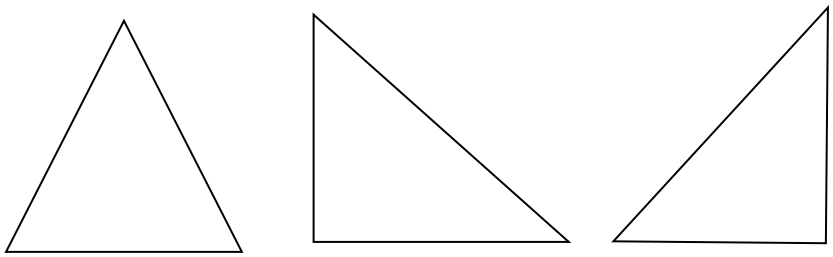
Area of the rectangle = _____ x _____cm^2

$$\text{Breadth of the rectangle} = \frac{\boxed{\text{perimeter}}}{\boxed{}}$$

Breadth of the rectangular street =

Question: C6MDT36A

Which of the following triangle is a right-angled triangle ?



Answer:

The angle made at the right angle is _____°

A triangle with right angle is called as _____.

Question: C6MDT36B

Draw an example of

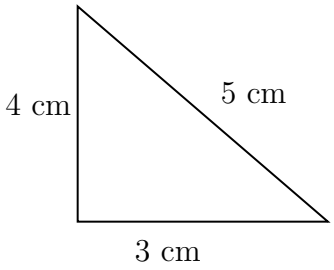
1. Scalene triangle
2. Obtuse angled triangle
3. Equilateral triangle

Answer:

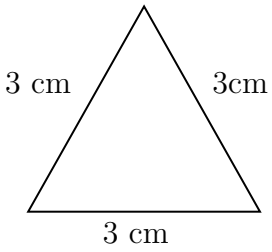
The sides and angle are different in _____ triangle.
All the sides and angles are equal in _____ triangle.
If one of the angle is greater than 90°, then the triangle is called as _____.

Question: C6MDT36C

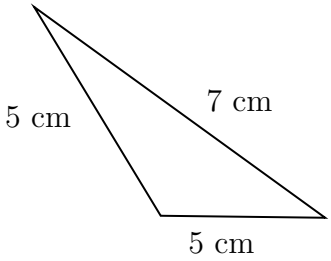
Name each of the following triangles in two different ways (based on angles and based on sides).



Based on angle : _____
Based on side : _____



Based on angle : _____
Based on side : _____



Based on angle : _____
Based on side : _____

Answer:

A triangle having all three unequal sides is called a _____.
A triangle having three equal sides is called an _____.
A triangle having two equal sides is called an _____.
If each angle is less than 90°, then the triangle is called an _____.
If any one angle is a right angle then the triangle is called a _____.
If any one angle is greater than 90°, then the triangle is called an _____.

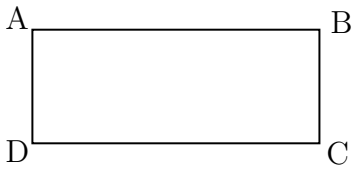
Question: C6MDT33A

Any two sides with a common end point are called the _____ sides of the polygon.

Answer:

_____ is closed figure with 3 or more sides.

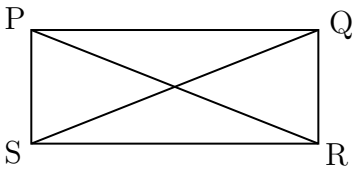
Mark the adjacent angles.



Any two sides with a common end point are called the _____ sides of the polygon.

Question: C6MDT33B

Name the diagonals from the given figure.

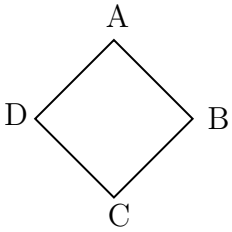


Answer:

A _____ is a straight line connecting the opposite corners of a polygon through its vertex .
The given figure PQRS is a _____
The sides of the given shape are _____
The diagonals in the given figure is _____

Question: C6MDT33C

Mark the sides, diagonals and adjacent sides in the rhombus.



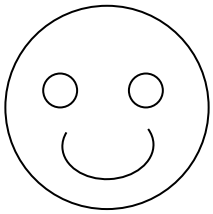
Answer:

The given shape is _____.
The sides of the polygon is _____.
The diagonals of the polygon is _____.

The adjacent sides of the polygon is _____.

Question: C6MDT26A

Draw the line of symmetry for this shape.



Answer:

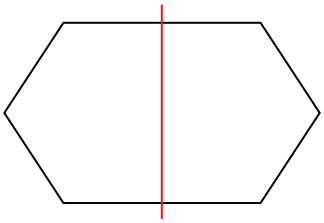
In symmetry if a image is divided by a line, that image should be divided into _____ symmetric parts.
Let's assume a line X to find the symmetricity of the given figure,
The line X divides the image equally. Hence, X is the _____.

Question: C6MDT26B

_____ lines of symmetry can be drawn for a hexagon ?

Answer:

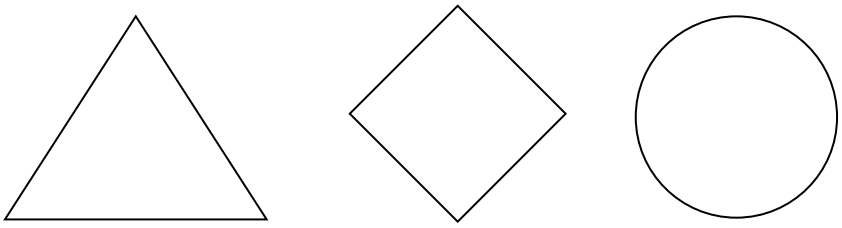
The line of symmetry is also called as _____.
A hexagon has _____ sides.
Mark the lines of symmetry.



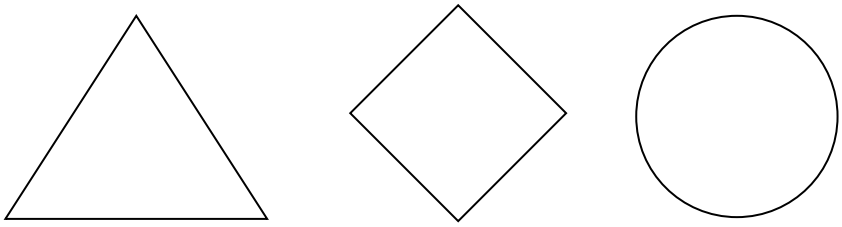
Therefore, the hexagon has _____ lines of symmetry.

Question: C6MDT26C

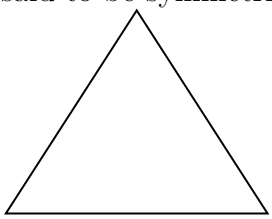
Draw the lines of symmetry for the following figures.



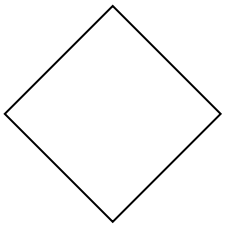
Answer:



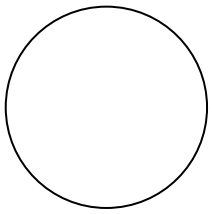
An image is said to be symmetrical if it has _____ balanced proportion.



This is an image of a _____
Lines of symmetry _____



This is an image of a _____
Lines of symmetry _____



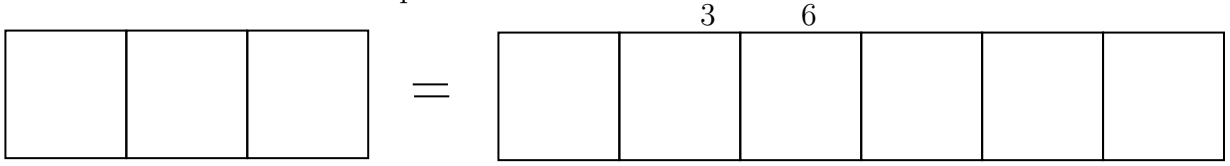
This is an image of a _____
Lines of symmetry _____

Number system

Topics	To be Improved
Equivalent fraction	Understanding equivalent fractions
Operation on decimals	Addition of decimals
Decimals	Comparision of decimals
Lowest Common Multiple	LCM of numbers
Prime and Composite Numbers	Prime and Composite Numbers

Question: C6MDT7A

Shade and write down the equivalent fraction of $\frac{2}{3}=\frac{\square}{6}$

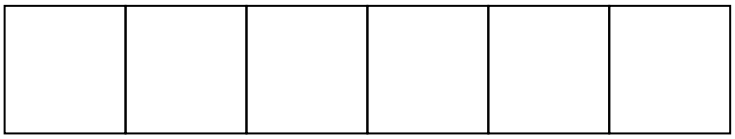


Answer:

_____ fraction represent the same part of a whole.

There are _____ square boxes filled out of 3 square boxes.
The fraction is _____.

$\frac{2}{3}\times\frac{\square}{\square}=\frac{\square}{6}$ 6 is twice of 3, _____ is twice of 2



There are _____ square boxes filled out of 6 square boxes.

The fraction is _____.

Question: C6MDT7B

Write two equivalent fraction for $\frac{105}{140}$.

Answer:

To find an _____ fraction of a given fraction, you may multiply both the numerator and the denominator of the given fraction by the _____ (same/ different) number.

$$\frac{105}{140}=\frac{\square}{\square}=\frac{\square}{\square}$$

$$\frac{105}{140}=\frac{\square}{\square}=\frac{\square}{\square}$$

Question: C6MDT7C

Find the equivalent fraction for $\frac{210}{280}$ with numerator 3.

Answer:

To find an equivalent fraction, we may multiply or _____ both the numerator and the denominator by the same number.
To get the denominator 3, divide numerator and denominator with same number.

$$\frac{210 \div \square}{280 \div \square} = \frac{\square}{\boxed{3}}$$

Question: C6MDT12A

Arrange the following numbers in ascending order; 2.01, 1.2, 0.002, 0.02, 1.002

Answer:

$2.01 = 2 + 0.01 = 2 + \frac{2}{\square}$ $\quad 1.2 = 1 + 0.2 = 1 + \frac{2}{\square}$ $\quad 0.2 = 0.2 = \frac{2}{\square}$

$0.02 = 0.02 = \frac{2}{\square}$ $\quad 1.02 = 1 + 0.02 = \frac{2}{\square}$

Expand the numbers	Ones	Tenths	Hundredths
Least number			
Second least number			
Third least number			
Fourth least number			
Greatest number	2	0	1

Arranging the numbers in ascending order, we get :

Question: C6MDT12B

$$\begin{array}{r} 192.01 \\ (+)\ 42.67 \\ (-)\ \ 0.11 \\ \hline \\ \hline \end{array}$$

Answer:

Numbers	Hundreds	Tens	Ones	Tenths	Hundredths
192.01					
42.67					
Sum					

Numbers	Hundreds	Tens	Ones	Tenths	Hundredths
_____					
0.11					
Difference					

Question: C6MDT12C

Shop keeper had a stock of 12kg 720grams of oranges in his shop.
Customer 1 bought = 1kg 300grams
Customer 2 bought = 3kg 120grams
Customer 3 bought = 5kg
What is the remaining stock in his shop?

Answer:

Stock of oranges in the shop : _____

Total oranges sold = _____ + _____ + _____ = _____
Remaining stock = Stock of oranges in the shop _____ (+/-) Total oranges sold
Remaining stock = _____

Question: C6MDT13A

Who scored the highest mark ?

Aleena
80.4

Afrin
93.1

Aarav
88.6

Answer:

Name	**Mark Scored**	**Tens**	**Ones**	**Tenths**
	Highest mark			
	Second highest mark			
	Least mark			

The highest mark is scored by _____

Question: C6MDT13B

Compare the following pairs of numbers using > or <.

i. 0.02 ☐ 0.23

ii. 9.21 ☐ 9.12

iii. 64.7 ☐ 64.07

Answer:

Comparing numbers	Tens	Ones	Tenths	Hundredths
0.02				
0.23				

Comparing numbers	Tens	Ones	Tenths	Hundredths
9.21				
9.12				

Comparing numbers	Tens	Ones	Tenths	Hundredths
64.7				
64.07				

Question: C6MDT13C

Pick the numbers which are above 8521.02.

8521.22	8521.01	8521.20	8511.2	8522.0

Answer:

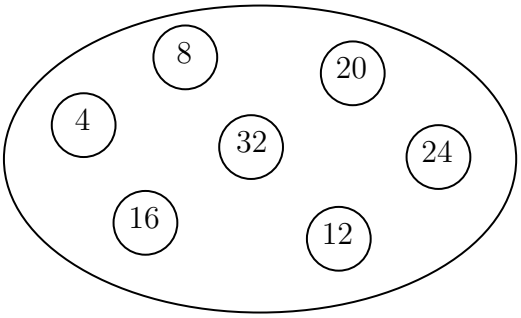
Expand numbers	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
8521.22						
8521.01						
8521.20						
8511.2						
8522.0						

Hi, here in this video we going to learn how to divide a number and divisibility rule.

C6MDT3.png

Question: C6MDT3A

Pick the common multiple of 4 and 8.



Answer:

The multiples of 4 are ___, ___, ___, ___, ___, ___, ___, ___
The multiples of 8 are ___, ___, ___, ___, ___, ___, ___, ___
The common multiples of 4 and 8 in the above circle are ___, ___, ___ and ___.

Question: C6MDT3B

Find the LCM of 50, twice of 50 and thrice of 50.

Answer:

Twice of 50 = 2 x ___ = _____
Thrice of 50 = 3 x ___ = _____
Complete the division using least common multiple.

50, ___, ___	
1, 2, 3	

The LCM of 50, twice of 50 and thrice of 50 is 2 × 3 × _____ × _____

Question: C6MDT3C

Find the least number which when divided by 20, 40 and 60 leaves a remainder 3 in each case.

Answer:

Complete the division using least common multiple.

20 , 40 , 60
1 , 2 , 3

The LCM of 20, 40 and 60 is _____.
To find the least number which when divided by 20, 40 and 60 leaves a remainder 3 in each case then,
(The LCM of 20, 40 and 60) _____ + _____ = _____

Hi, here in this video we going to learn what is angle, different types of angles and how to calculate the angles.

C6MDT4.png

Question: C6MDT4A

Tick the correct answer.
25 is a (Prime number/Composite number)

Answer:

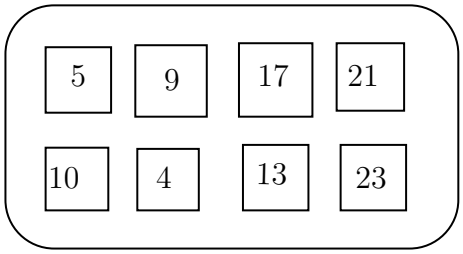
To check whether it is a prime or a composite number.

___ x 1 = 25
___ x ___ = 25
___ x ___ = 25

The number 25 has _____ factors.
The factors of 25 are _____.
The number 25 is a _____ number.

Question: C6MDT4B

From the given numbers, write down the prime numbers and composite numbers separately.



Prime Numbers

Composite Numbers

Answer:

Prime numbers are numbers which has _____ factors.
Composite numbers are numbers which has _____ factors.

Factors of 5 : 1 and 5 - 2 factors
Factors of 9 : _____
Factors of 17 : _____
Factors of 21 : _____
Factors of 10 : _____
Factors of 4 : _____
Factors of 13 : _____
Factors of 23 : _____

Question: C6MDT4C

31 is the sum of three consecutive prime numbers. What are the three prime numbers?

Answer:

(The LCM of 20, 40 and 60) _____ + _____ = _____
Adding first 3 prime numbers (2, 3, 5) : 2 + 3 + 5 = _____
Adding next 3 prime numbers (3, 5, 7) : _____
Adding next 3 prime numbers : _____
Adding next 3 prime numbers : _____
31 is the sum of three consecutive prime numbers, they are _____, _____ and _____.
