

FBQ12: A cylindrical tank has a capacity of 3080m^3 . What is the depth of the tank, if the base diameter of the base is 14m _____

Answer: 20m

FBQ13: Simplify $12 - 312 + 3$ _____

Answer: $1/3$

FBQ14: If $\sin \hat{A} = 3/5$, find $\tan \hat{A}$ _____

Answer: $3/4$

FBQ15: Calculate the logarithm to base 9 of $3 \cdot 4 \sqrt[3]{92} - (81)^{-1}$, _____

Answer: -2

FBQ16: In triangle XYZ, $\hat{X} = 150^\circ$, $\hat{Y} = 45^\circ$ and $XY = 7\text{cm}$, find math

Answer: 726cm

FBQ17: Find r , if $6r78 \hat{=} 5119$ _____

Answer: 3

FBQ18: Express the product of 0.21 and 0.34 _____

Answer: 7.14×10^{-2}

FBQ19: Given that $\log 2 = 0.3010$ and $\log 7 = 0.8451$. evaluate $\log 112$,

Answer: 2.0491

FBQ20: If the two smaller sides of a right angle triangle are 4cm and 5cm , find its area

Answer: 10 sq cm

FBQ21: Find the value of x for which $2(32x - 1) = 162$,

Answer: $5/2$

FBQ22: Simplify $\log_2 8 \log_4 4$,

Answer: $3/2$

FBQ23: When a dealer sells a bicycle for $\text{N}81$ he makes a profit of 8% . What did he pay for the bicycle?,

Answer: $\text{N}75$

FBQ24: Write the decimal number 39 to base 2 ,

Answer: 100111

FBQ25: Two distinct sectors in the same circle subtend 1000 and 300 respectively at the centre of the circle. Their corresponding arcs are in the ratio _____

Answer: $10:3$

FBQ26: A side of a rhombus is 2cm in length. An angle of the rhombus is 60° . What is the length of the diagonal facing the angle _____

Answer: 2cm

FBQ27: Given a regular hexagon, calculate each interior angle of the hexagon _____
Answer: 120°

FBQ28: The Common difference of sequence 5,8,11,14,â€¦ is____
Answer: 3

FBQ29: One interior angle of a convex hexagon is 170° and each of the remaining angles is equal to x° . Find x , _____
Answer: 110°

FBQ30: A regular polygon of n -sides has 160° as the size of each of interior angle. Find n , _____
Answer: 18

FBQ31: The perimeter of a rectangular lawn is 24cm . if the area is 35 sq cm , how wide is the lawn?
Answer: 5cm

FBQ32: Find the radius of a sphere whose surface area is 154 sq cm , [$\pi=22/7$],
Answer: 3.5cm

FBQ33: The angle between latitudes 30°S and 13°N is, _____
Answer: 43°

FBQ34: If $\sin x^\circ = \cos x^\circ$, find x between 0° to 360° ,
Answer: 45°

FBQ35: The area of a circle is _____ cm^2 whose circumference is 44cm ,
Answer: 154 cm^2

FBQ36: A sector of a circle of radius 14cm has an area of 77cm^2 . Calculate the angle of the sector at the centre,
Answer: 45°

FBQ37: What is the length of a chord drawn 12cm away from the centre off a circle of radius 13cm ,
Answer: 10cm

FBQ38: Find an exterior angle of a regular pentagon,
Answer: 72°

FBQ39: Find the hypotenuse of a right-angled triangle of which its shorter sides are 3cm and 4cm respectively,
Answer: 5cm

FBQ40: Calculate the area of an equilateral triangle of side 12cm
Answer: $36\sqrt{3}\text{cm}^2$

FBQ41: What is the length of a diagonal of a square whose area is 242cm^2 ___

Answer: 22cm *

FBQ42: If $\cos \hat{A} = \frac{3}{5}$, find $\tan \hat{A}$,

Answer: $\frac{3}{4}$ *

FBQ43: What is the volume of a cone whose radius is 9cm and height is 21cm ,

_____ cm^3

Answer: 2442 *

FBQ44: If $m=3$, $q=2$ and $r=21$ evaluate m^2qr

Answer: $\frac{243}{7}$ *

FBQ45: Simplify $3^{12} \cdot 2^{13} \cdot 12$, _____

Answer: $\frac{7}{3}$ *

FBQ46: What is the diagonal of a land measuring 100m by 100m ?

Answer: $100\sqrt{2}\text{m}$

FBQ47: The slope of the linear equation $y=12x-2$ is _____.

Answer: $\frac{2}{3}$ *

FBQ48: If three people are to share $\text{N}72$ in the ratio of $3:4:5$, what is the smallest share?, _____

Answer: $\text{N}18$ *

FBQ49: Convert 2710 to a number in base 4 , _____

Answer: 1234 *

FBQ50: If $2n=128$ find the value of n _____

Answer: 7 *

Multiple Choice Questions (MCQs):

MCQ1: The highest in the hierarchy of numbers is _____ numbers

Answer: natural

MCQ2: Pi is an example of _____ number

Answer: irrational

MCQ3: If $6410 = x^5$ find x ?

Answer: 223

MCQ4: Convert 173 to base eight

Answer: 24438

MCQ5: Convert 10111012 to denary

Answer: 95

MCQ6: Convert 1345 to denary

Answer: 44

MCQ7: If $202x = 101002$ solve for x

Answer: 5

MCQ8: Find the next term of each sequence 4, 16, 36, 64, 100

Answer: 169

MCQ9: If $35y + 62y = 125y$ and the value of y

Answer: 4

MCQ10: Expand and simplify $(2x - 1)(x + 3)$

Answer: $x^2 + x - 5$

MCQ11: Perform the operation $4^2 + 3^2 - 2^2$

Answer: 52

MCQ12:

Answer: $x^2 - 6x + 9$

MCQ13: Simplify $x^7 \cdot x^3$

Answer: x^{10}

MCQ14: When solving a quadratic equation, you are looking for which of the following?

Answer: Point(s) of intersection

MCQ15: A linear system of equations made up of two intersecting lines has _____ solution(s)

Answer: two

MCQ16: If the legs of a right triangle measure 5 and 12 cm respectively, the measure of the third side is

Answer: 21 cm

MCQ17: Simplify $4 - 2353$

Answer: -2349

MCQ18: Find the cost of 11 bottles of cough syrup if the cost of 2 dozen of it is N 2520.

Answer: N115

MCQ19: A quantity of food lasts 5 men for one month (30 days). For how long will it last 6 men, if their rate of eating is the same?

Answer: 24 days

MCQ20: In a class of 60 students, 42 were present. What is the percent attendance?

Answer: 70%

MCQ21: A pharmacist bought a drug for N 375 and sold it for N 420. Find his or her profit or loss percent

Answer: 14%

MCQ22:

Answer: x^5

MCQ23:

Answer: 6

MCQ24:

Answer: 5

MCQ25: Given $y+6x=3$ what is the value of y when $x=1$

Answer: -1

MCQ26:

Answer: -2

MCQ27:

Answer:

MCQ28: An acute angle is an angle whose size is less than

Answer: 90°

MCQ29: Find the length of the arc of a circle of radius 7cm, which subtends an angle of 60° at the center of the circle. (Take $\pi=227$)

Answer: 253cm

MCQ30: Find the angle subtended at the centre of a circle radius 6.2cm by an arc of length 12cm. (Take $\pi=227$)

Answer: 10.85°

MCQ31: The square root of a number is the same as raising the number to the

Answer: $(1/2)$ power

MCQ32: Find the circumference of a circle of radius 10cm. Take $\pi = 3.142$

Answer: 62.84cm

MCQ33: Find the circumference and area of the circle of radius 12cm. (Take $\pi=227$)

Answer: 75.4cm and 42.58cm²

MCQ34: A sector is cut out of a circle of radius 21 cm. Find the length of arc. (Take $\pi=227$)

Answer: 60cm

MCQ35: A sector is cut out of a circle of radius 21 cm. Find the area of this sector, if the sector subtends an angle of 120° . (Take $\pi=227$)

Answer: 463cm²

MCQ36: Find the perimeter of a semicircle of radius 12.3cm. Take $\pi = 3.142$

Answer: 6.25cm

MCQ37: A Cuboid is 10cm long, 8cm wide and 7cm high. Find the total surface area of the Cuboid

Answer: 412cm²

MCQ38: Find the volume of a 12.5cm by 10.5cm by 8.5cm box

Answer: 115.625cm³

MCQ39: If $\log_7 x = 2$

Answer: 49

MCQ40: Evaluate $\log_{10} 10$

Answer: 1

MCQ41: Simplify the following $\log_a x^2 + 3\log_a x - 2\log_a 4x$

Answer: $\log_a x^2$

MCQ42: Solve the following for x: $2\log_a x - \log_a (x-1) = \log_a (x-1)$

Answer: 23

MCQ43: Simplify $8x^3 - 3x^2 - 6x - 4$

Answer: $2x^2$

MCQ44: Simplify $2a^3b^3 \cdot a^2b^6 - ab^2$

Answer: a^2

MCQ45: The diameter of the base of a cylinder is 12 cm and the height is 8 cm. Find the surface area of the solid cylinder

Answer: 528 cm²

MCQ46: The ages of Isa and Adamu differ by 6 and the product of their ages is 187. Write their ages in the form (x,y) where $x > y$.

Answer: (12,6)

MCQ47: Find n if, $\log_2 4 + \log_2 7 + \log_2 n = 1$

Answer: 28

MCQ48: If $5x + 2y = 5$ and $4x + 3y = 16$, find $3x + y$

Answer: 0

MCQ49: If the population of a town was 240,000 in January 1998 and it increased by 2% each year, what would be the population in 2000?

Answer: 480,000

MCQ50: If $m = 3$, $p = -3$, $q = 7$ and $r = \frac{5}{2}$, evaluate $m(p+q+r)$

Answer: 19