**Cairo governorate**

**Nasr city educational zone**

**Alsun modern school**



**For Primary Six**

**Name: ……………………..**

**Class: ……………………...**

**Q1: Choose the correct answer from those given:**

|  |
| --- |
| 1. If the sum of the edge lengths of a cube = 144 cm, then its volume equals = ……
 |
| (a) | 1728cm |  | (b) | 144cm |  | (c) | 144cm2 |  | (D) | 1728cm3 |  |
| 1. If 45% of $X$ = 90, then $X$ = ……………….
 |
| (a) | 200 |  | (b) | 100 |  | (c) | 300 |  | (D) | 20 |  |
| 1. The diagonals are perpendicular and not equal in length in ……….
 |
| (a) | Parallelogram |  | (b) | Rectangle |  | (c) | Rhombus |  | (D) | Square |  |
| 1. The centimeter cube is a unit for measuring …………
 |
| (a) | length |  | (b) | volume |  | (c) | perimeter |  | (D) | area |  |
| 1. The volume of a cuboid whose dimensions are 2cm, 4cm, and 6cm = …………….cm3.
 |
| (a) | 36 |  | (b) | 24 |  | (c) | 84 |  | (D) | 48 |  |
| 1. The percentage is a ratio which second term is ……………
 |
| (a) | 10 |  | (b) | 100 |  | (c) | 1000 |  | (D) | 10000 |  |
| 1. An agricultural machine ploughs 14 feddans in 3.5 hours, then the rate of performance of the machine in feddan per hour is ………….
 |
| (a) | $$\frac{1}{2}$$ |  | (b) | 8 |  | (c) | 4 |  | (D) | 49 |  |
| 1. If an angle of a parallelogram was a right angle and its two adjacent sides were equal in length, then it's called……..
 |
| (a) | rhombus |  | (b) | square |  | (c) | triangle |  | (D) | rectangle |  |
| 1. ……………. Is quantitative data.
 |
| (a) | Blood type |  | (b) | Address |  | (c) | Date of birth |  |
| 1. 300 gm. : $1\frac{1}{2}$ kg. = …………
 |
| (a) | 1:2 |  | (b) | 1:5 |  | (c) | 1:10 |  | (D) | 1:30 |  |
|  |

**Q2: Complete the following:**

1. If 3, 4, 9 and $X$ are proportional quantities, then $X$=……..
2. If the drawing scale >1, this express ………
3. The two diagonals are perpendicular in each of …… and …………..
4. 20% of 200 pounds = …………. Pounds.
5. 1500 cm3 = …………….. litre.
6. 76% + 41% - …………….. = 100%
7. The two diagonals are equal in length and perpendicular in …………
8. The capacity is ………………….
9. 0.75 litre = ………. dm3.
10. The range for the values: 12, 7, 19, 17, 21 is ………
11. 62.5% = $\frac{………}{8}$
12. The volume of the cube which the sum of all its edge lengths is 36cm. = ………. cm3.
13. If the drawing scale <1, this expresses ………….
14. The difference between the greatest individual and smallest individual of a set of values is called ……………….
15. If the volume of a cuboid is 64cm3. and the area of its base is 16cm2., then its height = ………… cm.
16. The cuboid with equal dimensions is called……………………
17. The parallelogram become a rectangle if one of its angles was………
18. The range = ………………… - ……………………
19. From the properties of the proportion , then the product of the extremes = the product of the …………………….
20. The volume of a cuboid whose dimensions are 3cm., 2cm. and 5 cm. equals ………….. cm3.
21. 18 hours: one day = ……….. : …………… ( in the simplest form)
22. The ratio among $ \frac{1}{3} : \frac{1}{4}=$ ……….. : ……………
23. If A:b = 2: 3 and B : C = 3 : 5, then A : C = ……….. : ………

( in the simplest form)

1. The ratio between the side length of an equilateral triangle and its perimeter = ………… : ………………
2. The percentage is a ratio ……………..
3. length in drawing is 2 cm. and its real length is 20m., then the drawing scale equals …….. : ……………
4. The four sides are equal in length in each of ……….. and …………….
5. The edge length of a cube = 9cm., then the sum of all its edge lengths = ……………..
6. The length of an insect in a picture is 4cm. and its real length is 2 millimeters, then the drawing scale is ……………………….
7. The kinds of statistical data are : descriptive data and ………… data
8. If the values of a frequency distribution lie between (10,90), then the range of this distribution = …………………………

A

B

C

D

1. In the opposite figure: ABCD is a parallelogram in which $m\left(∠A\right)=60°, then m\left(∠C\right)=$……..
2. which is greater in volume, a cuboid of dimensions 70cm., 50 cm and 30 cm. or a cuboid whose base area = 2925cm2 and its height = 35cm?

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1. A father distributed L.E. 6300 among his three sons, if the share of the first was third of the money and the ratio between the share of the second and the third is equal 3:2, Calculate the share of each of them.

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1. If the length of the Suez Canal on a map of drawing scale 1:1100000 is 15 cm. Find the real length in kilometers.

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1. A man bought a flat for L.E. 15000, he sold it at 10% profit. Calculate the selling price of the flat.

**------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

1. A car consumes 20 litres of benzene to cover a distance of 180km. How many litres is needed to cover a distance of 540km?

**------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

1. If the ratio between the measures of the angles of a triangle is 5:6:7 and the measure of the first angle is 50o. Find the measure of each of the other two angles.

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1. If the distance between two cities is 180 km. and the drawing scale of a map is 1:9 000 000 How long is the distance between them on the map?

**------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

1. The ratio between the lengths of the sides of a triangle is 2:3:4, if the perimeter of the triangle is 54cm. Find the length of each side of the triangle.

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1. A shopkeeper for electric sets sold a refrigerator for L.E. 3180, If the percentage of his profit is 6% Find buying price.

**---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------**

1. A container in the shape of a cube, the length of its interior edge equals 20cm. Calculate the capacity of the container in litres.

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1. A quantity of honey is needed to be distributed into small 12 bottles; the capacity of each of them is 400 cm3. Find the volume of quantity of honey.
2. A man sold his car after one year of using it with price L.E. 52000, if its buying price was L.E. 65000. Find the percentage of his loss.

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. **Geometry**

1. In the opposite figure: ABCD is a parallelogram in which $m\left(∠C\right)=60°, then m\left(∠BDC\right)=80°$

A

B

C

D

**Find: 1)** $m\left(∠C\right)$ **2)** $m\left(∠ADB\right)$

1. In the opposite figure: ABCD is a parallelogram in which $m\left(∠CAD\right)=35°, then m\left(∠B\right)=100°$

A

B

C

D

$$, AB=3cm and BC=5cm$$

Calculate without using measuring tools each of:

1. $m\left(∠BAC\right)$ and $m\left(∠ADB\right)$
2. The length of each$\overbar{BC} and \overbar{AD}$
3. In the opposite figure: ABCD is a parallelogram in which $m\left(∠C\right)=60°, and m\left(∠BDC\right)=70°$

A

B

C

D

Find:

1. Measure of $\left(∠A\right)$ in degrees.
2. Measure of $\left(∠ADB\right)$ in degrees

In the opposite figure: ABCD is a trapezium in which

$$m\left(∠B\right)=90°, AD=7cm, AB=4cm, BC=10cm, DC= 5cm $$

and the figure ABXD is a rectangle, in this case complete:-

A

B

X

C

D

1. AB= …………. = ……………… cm
2. AD= …………. = ……………… cm
3. The perimeter of $∆ DXC$ = ……………… cm
4. In the opposite figure: ABCD is a parallelogram whose diagonals are intersecting at M, if $m\left(∠BAD\right)=65°, m\left(∠DBC\right)=40°$

AB=3cm, and AM=5cm

A

B

C

D

M

Find:

1. $m\left(∠ABC\right)$
2. $m\left(∠ABD\right)$
3. The length of $\overbar{DC}$
4. The length of $\overbar{AC}$
5. In the opposite figure: ABCD is a rhombus in which $m\left(∠BCD\right)=70°, and the length of \overbar{AB}=8 cm$

A

B

C

D

Find:

1. $the perimeter of the figure ABCD$
2. $m\left(∠ABC\right)$

**The following table shows the number of hours spent by a number of pupils dealing with computer:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Number of hours | 1- | 2- | 3- | 4- | 5- | 6- | Total |
| Number of pupils | 8 | 11 | 15 | 6 | 4 | 2 | 46 |

1. Represent these data using the frequency curve.
2. What is the number of pupils who spend less than 4 hours in dealing with computer?

**The table below represents the age of 45 visitors:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age  | 10- | 20- | 30- | 40- | 50- | Total |
| Frequency  | 6 | 9 | 14 | 11 | 5 | 45 |

1. Represent these data by the frequency curve.
2. Find the number of visitors whose ages less than 30 years.

**The following table shows the marks of 100 students in one month in math:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number of hours | 20- | 30- | 40- | 50- | Total |
| Number of pupils | 15 | 30 | 40 | 15 | 100 |

**Draw the frequency curve for this distribution.**