**HOME WORK, WEEKS 9 AND 10**

**CLASS:** SS1 **TEACHERS’ PHONE NOS: 08030459602**

**SUBJECT:** TECHNICAL DRAWING **EMAIL: oluwarotimiaweda@gmail.com**

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| 8 & 9 | Enlargement and  Reduction of Figures | Application of enlargement and reduction.Reduction and enlargement of regular and irregular plain figures: triangles, quadrilaterals, polygons, etc. | Explain the applications of enlargement and reduction of  objectsReduce given figures to given  proportions/ratiosEnlarge  given figures to given ratios |

**FILL IN THE BLANK SPACE**

1. In the diagram below, the figures \_\_\_\_\_\_ and \_\_\_\_\_\_ are in the ratio 2:5?



1. In the figure below PQRS and RSTU are parallelograms. If QT= 2, and SR = 3, the value of PU is \_\_\_\_\_\_\_



1. The ratio of line QR to line PR in the Figure is \_\_\_\_\_\_\_\_\_\_.



1. The figure below shows three irregular hexagons **J, K**, and **M.** \_\_\_:\_\_\_:\_\_\_\_ is the ratio of their sides.



5. In order to enlarge linear size, first divide the plane shape into \_\_\_\_\_\_\_\_\_\_ and extend the lines.

6. When enlargement is done using poles, it is called \_\_\_\_\_\_\_\_\_\_\_\_ enlargement.

7. Enlargement of area is based on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ theorem.

8. In enlargement of area, when the hypotenuse is √2 and the other sides are unity the enlarged square is \_\_\_\_\_\_\_\_\_\_\_ the area of the given square.

9. In enlargement of area, when the hypotenuse is √3 and the other sides are unity and √2, the enlarged square is \_\_\_\_\_\_\_\_\_\_\_ times the area of the given square.

10. In enlargement of area, when the hypotenuse is √4 and the other sides are unity and √3, the enlarged square is \_\_\_\_\_\_\_\_\_\_\_ times the area of the given square.

11. A very large object can be drawn on paper by using \_\_\_\_\_\_\_\_\_\_\_\_ of figures.

12. The primary unit of measurement for engineering drawings and design in the mechanical industries is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

13. The two triangles \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ have the same area in the figure below.



14. when the size of a small object is increased when drawn, the new drawing is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the previous one.

15. A \_\_\_\_\_\_\_\_\_\_\_\_\_ polygon has one of its internal angles more than 180°.

16. The plan of a cone is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

17. The point where a line penetrates a plane is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

18. The line shown below is a \_\_\_\_\_\_\_\_\_\_ line.

 

19. The plane shape, Rhombus, is a type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that all have four sides.

20. The figure shown below is a symbol for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ projection.



**ESSAY QUESTION**

1. Draw a quadrilateral ABCD, then construct a similar figure having half of the area of ABCD.

AB= 70mm BC=90mm

CD= 80mm AD=60mm ABC=700

 

2. Extend this figure, using polar enlargement, so that the 50mm side measures 85mm on the new figure, keeping the same proportions.

 

***EXAMINER: AWEDA, EMMANUEL O.***