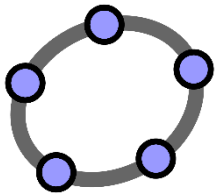
Year 12 Further Maths Summer Work (Task 2 of 2)

Task 2:

Complete an investigation in Geogebra and familiarise yourself with this tool as we will be using it throughout the next couple of years. Use this opportunity to explore the things Geogebra has to offer.

GeoGebra[4]

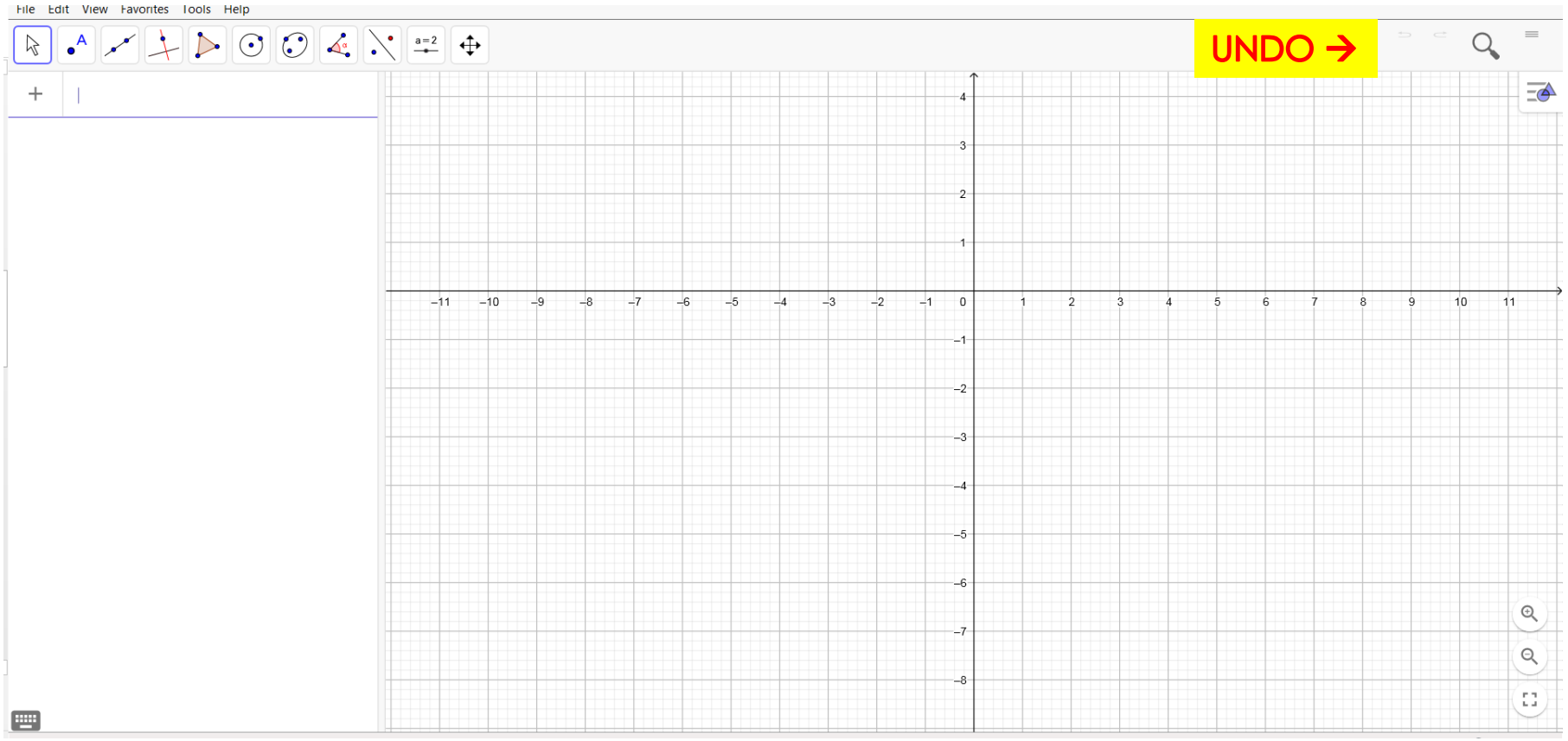


The next two slides show you the functions available on Geogebra Classic.

Look through these slides then complete the instructions for the activity that follows.

Your aim is to familiarise yourself with Geogebra and some of its functionalities.

To access Geogebra Classic, click here


File Edit View Favorites Tools Help
a=2
UNDO →
4
3
2
1
−11 −10 −9 −8 −7 −6 −5 −4 −3 −2 −1 0 1 2 3 4 5 6 7 8 9 10 11
−1
−2
−3
−4
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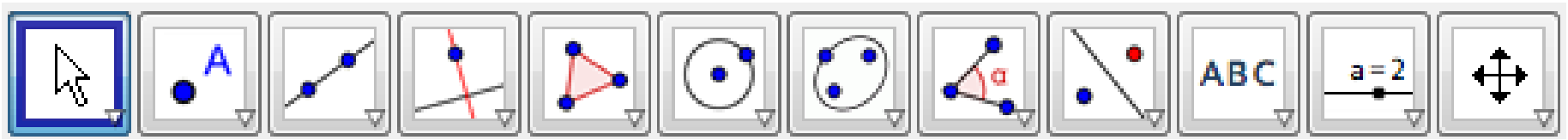
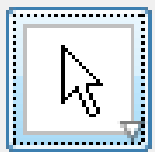
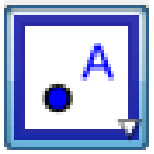
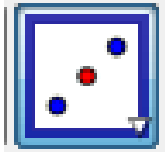
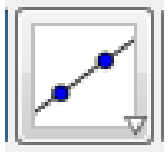
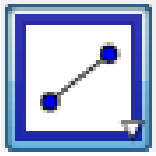
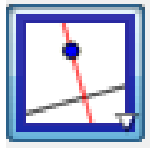


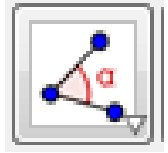

Moves an object

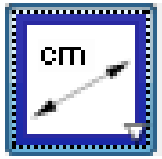


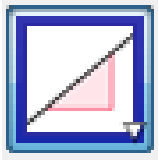
New point  Midpoint or centre


Line through 2 points  Line segment between 2 points

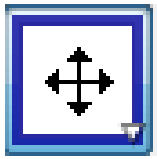

Perpendicular Line



Angle 

Distance or length  Slope 

Area


Move graphics view

GeoGebra 4 **ACTIVITY**

1. Plot the point A(-3,-4) showing it's coordinates
2. Plot the point B(8,-4), then draw the line segment AB
3. What is the equation of line AB?
4. Plot the point C(8,2), then draw the line segment BC
5. What is the equation of line BC?
6. Measure angle ABC?
7. AB is _____ to BC
8. Plot the point D to complete the rectangle. State the coordinates of D (____, ____).

8. Find E the mid-point of CD. State the coordinates of E (___ , ___)
9. Draw the line EF perpendicular to DC 4 units long.
10. Draw the line segments DF and CF. Find the length of DF _____
11. Measure angle EDF = _____
12. Measure angle DFC = _____
13. Find the area of triangle CDF = _____
14. Make the picture a house by adding a door and 2 windows then hide the grid. You can change the colours of shapes if you like.
15. Save the Geogebra document, print it off and bring it to your first Further Maths lesson showing all the calculations that you have been asked for.