Worksheet 2015-8ℰR-00003(1)

(1) Use quad paper or graph paper and draw the following on the same Cartesian plane:

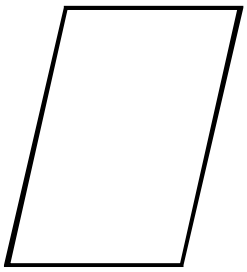
(a) M and N, for M das the reflection of N(-1 ; 5) in the y-axis.

(b) ST and S'T' with S(1 ; 2) and T(2 ; 5) if ST → S'T' is a rotation of 180°.

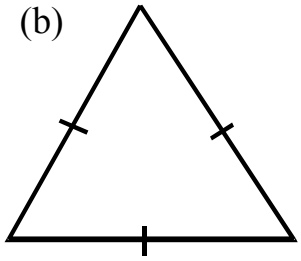
(c) Δ ABC translates 4 units upwards and 5 units to the left.
Draw both Δ ABC and Δ A' B' C'. A(4 ; 1), B(4 ; -5) and C(2 ; -5)

(2) Draw at least THREE lines of symmetry in on each figure, if possible:

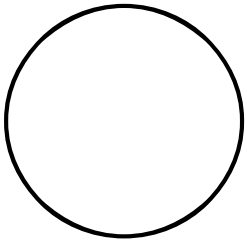
(a)



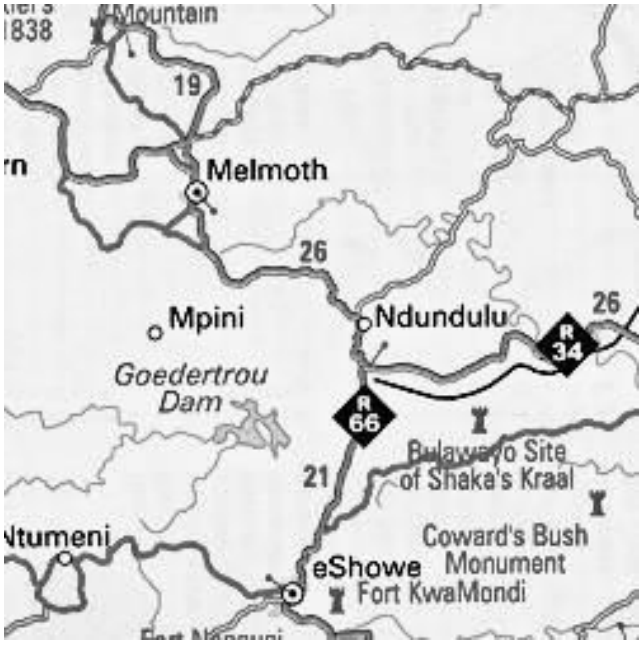
(b)



(c)



(3) If the scale on the map is 1:700 000, calculate the true direct distance (as the crow flies), between Melmoth and eShowe.



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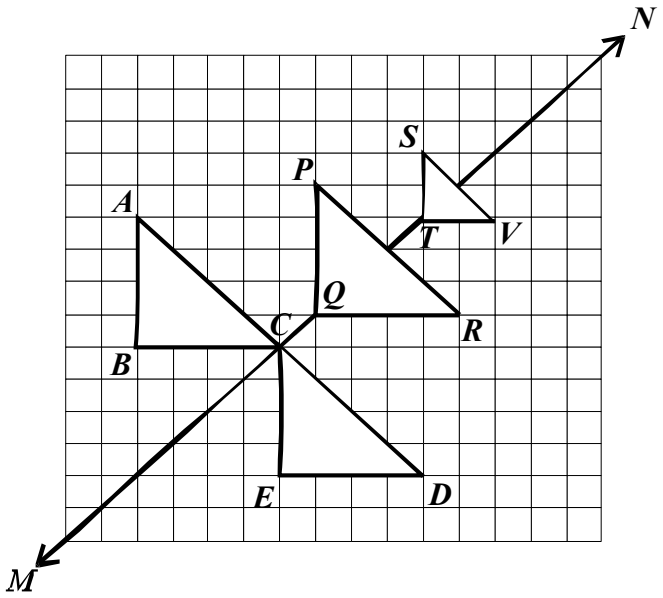
(4) (a) Is Δ ABC a reflection of Δ CDE in the line MN?

(b) Is Δ ABC a translation of Δ PQR? If so, describe the translation.

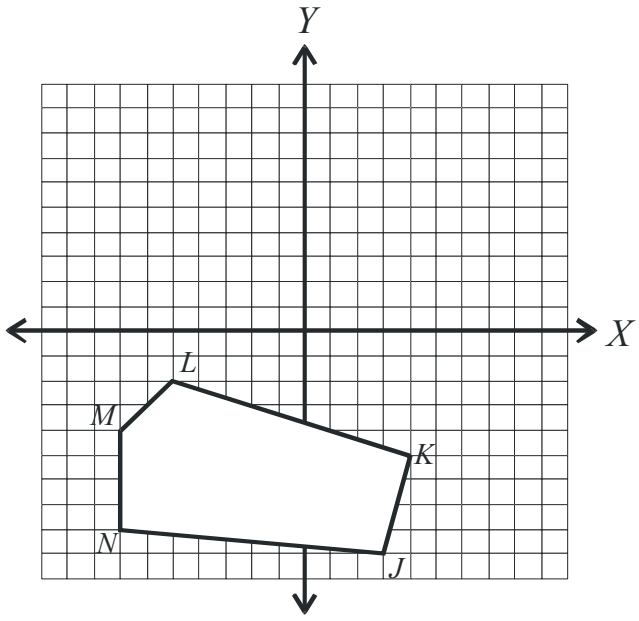
(c) Is Δ ABC an enlargement / reduction of Δ STV? If so, write the factor of enlargement / reduction.



(5) (a) Write the coordinates of J, K, L, M and N.

(b) Draw J'K'L'M'N' if JKLMN → J'K'L'M'N' as a translation of: $(x + 2 ; y + 12)$

(c) Write the coordinates of J ', K ', L ', M ' and N '.



(6) Scale 1:15 000

If necessary, round off correct to 4 dec.

(a) Calculate the distance (in km) of Zita street, between Gert Potgieter street and Petronella street.

(b) Calculate the area of Zita Park in km^2.

(c) Determine what the scale will be if the actual distance of Zita street between Len Brown street and Petronella street, is 770 m.