



# Topology

NAME: .....










CLASS: .....

DATE: .....



Basic/Core/Advanced

1) Group the following items so that they are topologically equivalent.

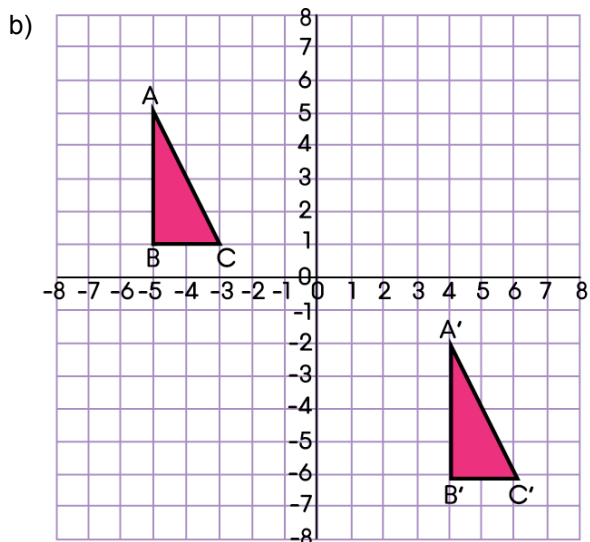
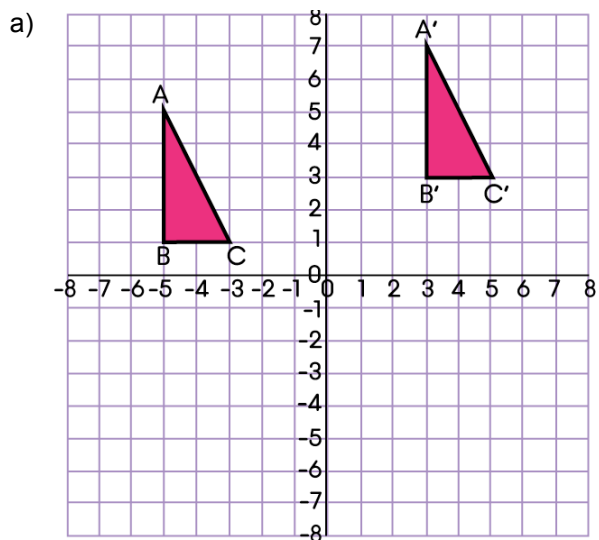
2) List the upper case letters of the alphabet in their homeomorphic grouping.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



## Basic/Core/Advanced










3) In each of the diagrams below describe the translations that take triangle ABC to triangle A'B'C'.



## ANSWERS

### Basic/Core/Advanced

1)

 0	 2	 1
 2	 0	 1
 1	 2	 0

2)

(A, R)

(B)

(C, G, I, J, L, M, N, S, U, V, W, Z)

(D, O)

(E, F, T, Y)

(H, K)

(P, Q)

(X)

3) a)  $\begin{pmatrix} 8 \\ 2 \end{pmatrix}$

b)  $\begin{pmatrix} 9 \\ -9 \end{pmatrix}$