

Using matrices, find the area of the triangle given the following vertices

1.  $(1, 1)$   $(4, 3)$   $(4, -1)$

2.  $(1, 6)$   $(6, 4)$   $(2, 0)$

3.  $(-3, 6)$   $(3, 5)$   $(0, 1)$

4.  $(7, 3)$   $(1, -3)$   $(6, -1)$

Using matrices, find the area of the quadrilateral given the following vertices

5.  $(3, 2)$   $(1, 9)$   $(10, 12)$   $(8, 3)$

6.  $(1, 3)$   $(2, 9)$   $(10, 11)$   $(6, 2)$

7.  $(-2, -4)$   $(-11, -1)$   $(-9, -8)$   $(-1, -12)$

8.  $(-7, -6)$   $(-10, 2)$   $(-5, 10)$   $(8, 6)$