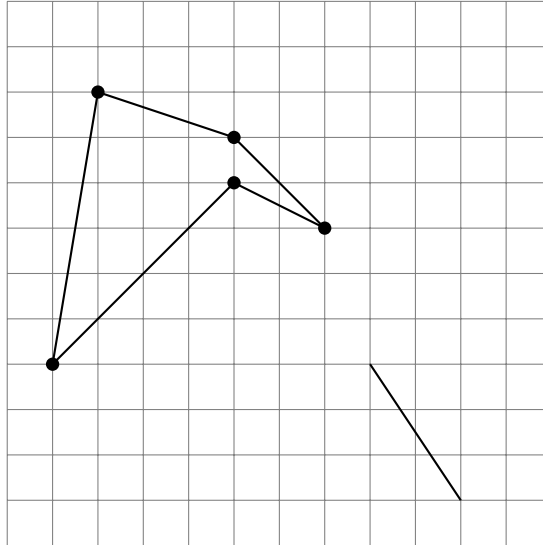


MA 202: Quiz 8

Tuesday 04/03/2018

1. Draw the image of shifting the pentagon below in the direction of the translation vector, 2 units right and 3 units down.



2. For each of the following, determine whether the statement is always true, sometimes true, or never true. Justify your answers.
 - (a) In a rotation of a square by 90 degrees, there is at least one point on the square that does not move.
 - (b) If a triangle is translated up by 5 units, the image is congruent to the original triangle.
 - (c) Pentagons have 180 degree rotational symmetry.