

Name: \_\_\_\_\_

Consider the following points in the plane:

$a : (12, 7)$

$b : (8, 8)$

$c : (17, 16)$

$d : (13, 14)$

$e : (17, 13)$

$f : (15, 11)$

$g : (6, 13)$

$h : (19, 5)$

$i : (9, 17)$

$j : (18, 9)$

$k : (6, 2)$

$l : (16, 6)$

$m : (5, 7)$

$n : (13, 3)$

$o : (9, 4)$

$p : (10, 11)$

$q : (21, 12)$

Find the convex hull of the points above. Specifically, you should give a polygon whose vertices are a sequence of points from the set  $\{a, b, \dots, q\}$ . To avoid ambiguity, list the points on the convex hull starting from the left-most point and moving around the hull in a clock-wise direction. You may find the graph paper on the back helpful.

