Chris Ruiz

Meghan Haukaas

Stephen Belden

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**Finding Collinear Points Tests & Discussion**

**Test Cases**

1. Zero points in the list  
   Points:  
   Expected output: Not enough collinear points.  
   Actual output:  
   Not enough input points to find collinear points.
2. No lines of more than 2 collinear points.  
   Points: (0,0) (1,1) (1,2) (2,3) (0,2) (10,0) (5,3) (8,2) (2,8) (6,7)  
   Expected output: Not enough collinear points.  
   Actual output:  
   No groups of 4 or more collinear points.
3. No lines of more than 3 collinear points.  
   Points: (0,0) (1,1) (2,2) (2,3) (0,2) (10,5) (5,3) (2,4) (3,8) (5,2)  
   Expected output: Not enough collinear points.  
   Actual output:  
   No groups of 4 or more collinear points.
4. Lines of 4 or more collinear points.  
   Points: (0,0) (1,1) (2,2) (3,3) (4,4) (10,5) (6,3) (4,2) (8,4) (3,9)  
   Expected output: Line A: Points at (0,0) (1,1) (2,2) (3,3) (4,4) are collinear.  
   Line B: Points at (10,5) (6,3) (4,2) (8,4) (0,0) are collinear.  
   Actual output:  
   Line 1 has 5 collinear points: (0, 0), (6, 3),  
    (10, 5), (4, 2), (8, 4),

Line 2 has 5 collinear points: (0, 0), (2, 2),

(3, 3), (4, 4), (1, 1),

1. Two parallel collinear lines  
   Points: (0,1) (1,2) (2,3) (3,4) (4,5) (3,2) (4,3) (5,4) (6,5) (7,6)  
   Expected output: Line A: Points at (0,1) (1,2) (2,3) (3,4) (4,5) are collinear.  
   Line B: Points at (3,2) (4,3) (5,4) (6,5) (7,6) are collinear.  
   Actual output:  
   Line 1 has 5 collinear points: (0, 1), (1, 2),

(2, 3), (3, 4), (4, 5),

Line 2 has 5 collinear points: (3, 2), (4, 3),

(5, 4), (6, 5), (7, 6),

1. Vertical and Horizontal lines  
   Points: (0,0) (0,1) (0,2) (0,3) (0,4) (1,0) (2,0) (3,0) (4,0)