



Math Olympiad and Problem Solving Programs  
E130 - Honors Geometry Problem Solving  
Problem Set 27.1 - Analytical Geometry

Name:

Date:

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1. (a)  $(4, 4.5)$  (b)  $5$  (c)  $\frac{3}{4}$  (d)  $y - 3 = \frac{3}{4}(x - 2)$  OR  $y = \frac{3}{4}x + \frac{3}{2}$
2. (a)  $\frac{1}{2}$  (b)  $(-6, 0)$  (c)  $x = -3$
3. (a)  $3\sqrt{5}$  (b)  $\frac{1}{3}$  (c)  $y - 9 = \frac{1}{3}(x - 3)$  OR  $y = \frac{1}{3}x + 8$
4. (a)  $-\frac{3}{4}$  (b)  $y = -\frac{3}{4}(x - 8)$  OR  $y = -\frac{3}{4}x + 6$  (c)  $24$  (d)  $4.8$
5. (a)  $10$  (b)  $\frac{1}{3}$  (c)  $y - 7 = \frac{1}{3}x$  OR  $y = \frac{1}{3}x + 7$  (d)  $(12, 7)$  (e)  $60$
6. (a)  $y = 3x + \frac{1}{2}$  (b)  $y = 3x$
7. (a)  $p = \frac{1}{15}, q = \frac{25}{3}$  (b)  $\frac{245}{3} = 81\frac{2}{3}$