

Answers to Problems in Lines and Planes Handout

Section 1, Problem 1. $x + 3y = 19$.

Section 1, Problem 2. $x = t, y = (4t - 2)/7$.

Section 2, Problem 1. The vectors from the first point to the second and from the first to the third are parallel.

Section 2, Problem 2. $y = -x/2 + 1/2$.

Section 2, Problem 3. Graphs.

Section 2, Problem 4. $\left(\frac{23}{15}, -\frac{17}{15}, -\frac{1}{15}\right)$.

Section 2, Problem 5. The normal vectors are parallel.

Section 2, Problem 6. $\left(\frac{4}{3}, \frac{1}{3}, \frac{4}{3}\right)$.

Section 2, Problem 7. $x + 2y - 4z = -1$.

Section 3, Problem 1. $(2, -1)$.

Section 3, Problem 2. The three equations in r and s have no common solution.

Section 3, Problem 3. $\langle x, y, z \rangle = \langle 3, 1, 2 \rangle t + \langle 0, 2, 4 \rangle$.