

12.6 Answers

1. a) $x=2+3t, y=2t, z=-5-t$
b) $x=-1+2t, y=3+3t, z=2-3t$
2. a) $\mathbf{r} = 2\mathbf{i} - 5\mathbf{k} + t(3\mathbf{i} + 2\mathbf{j} - \mathbf{k})$
b) $(x+1)/2=(y-3)/3=(z-2)/-3$
3. $(0, -3/2, 11/2)$
4. a) parallel
b) skew
c) Intersecting; $(-32, -13, 28)$
5. a) $2x-7y+3z=-6$
b) $2x+3y-3z=-14$
c) $8x+15y+7z=4$
d) $y+z=4$
6. $(6, 6, -6)$
7. $x=t, y=(-1-t)/2, z=(1-3t)/2$
8. a) parallel
b) perpendicular
9. about 61.87 degrees
10. $6/\sqrt{86}$