Web**Assign**

Hw 2 (12.5): Equations of Lines and Planes (Homework)

Yinglai Wang MA 261 Fall 2012, section 121, Fall 2012 Instructor: David Daniels

1. 2.85/2.85 points | Previous Answers

SCalcET7 12.5.002.MI.

Find a vector equation and parametric equations for the line. (Use the parameter t.)

The line through the point (6, -5, 2) and parallel to the vector $\left\langle 1, 3, -\frac{2}{3} \right\rangle$

$$\mathbf{r}(t) =$$

$$(x(t), y(t), z(t)) = \Big($$

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2. 2.85/2.85 points | Previous Answers

SCalcET7 12.5.004.

Find a vector equation and parametric equations for the line. (Use the parameter t.)

The line through the point (0, 12, -6) and parallel to the line

$$x = -1 + 4t$$
, $y = 6 - 2t$, $z = 3 + 8t$

$$\mathbf{r}(t) =$$

 $(x(t), y(t), z(t)) = \Big($

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3. 2.85/2.85 points | Previous Answers

SCalcET7 12.5.006.

Find parametric equations for the line. (Use the parameter t.)

The line through the origin and the point (7, 5, -1)

 $(x(t), y(t), z(t)) = \Big($

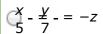


Flash Player version 10 or higher is required for this question.

You can <u>get Flash Player free from Adobe's</u> <u>website</u>.



Find the symmetric equations.



$$\bigcirc x - 7 = y - 5 = z + 1$$

$$\bigcirc x + 7 = y + 5 = z - 1$$

$$\int_{7}^{x} - \frac{y}{5} - = z$$

$$\underbrace{\mathbf{z}}_{7}^{\mathbf{y}} - \underbrace{\mathbf{y}}_{5}^{\mathbf{y}} - = -z$$

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4. 2.85/2.85 points | Previous Answers

SCalcET7 12.5.010.

Find parametric equations and symmetric equations for the line. (Use the parameter t.)

The line through (5, 1, 0) and perpendicular to both $\mathbf{i} + \mathbf{j}$ and $\mathbf{j} + \mathbf{k}$

$$(x(t), y(t), z(t)) = ($$



The symmetric equations are given by

$$x + 5 = -(y + 1), z =$$

$$(-(x-5) = y-1 = z.$$

$$\bigcirc x - 5 = y - 1 = -z.$$

$$x - 5 = -(y - 1) = z$$
.

$$x + 5 = -(y + 1) = z$$
.

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5. 2.85/2.85 points | Previous Answers

SCalcET7 12.5.017.

Find a vector equation for the line segment from (2, -1, 7) to (4, 6, 5). (Use the parameter t.)

$$\mathbf{r}(t) =$$

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6. 2.85/2.85 points | Previous Answers

SCalcET7 12.5.027.

Find an equation of the plane.

The plane through the point (4, -2, -9) and parallel to the plane 2x - y - z = 3



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7. 2.9/2.9 points | Previous Answers

SCalcET7 12.5.031.

Find an equation of the plane.

The plane through the points (0, 7, 7), (7, 0, 7), and (7, 7, 0)



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