Calculus 3 – Aug 28, 2003

Take out a 8 1/2 by 11 piece of paper

Write your name and today's date on it

Rules:

Show **ALL** work for credit; be neat. Calculators can be used for graphing and calculating only. Give exact answers when possible.
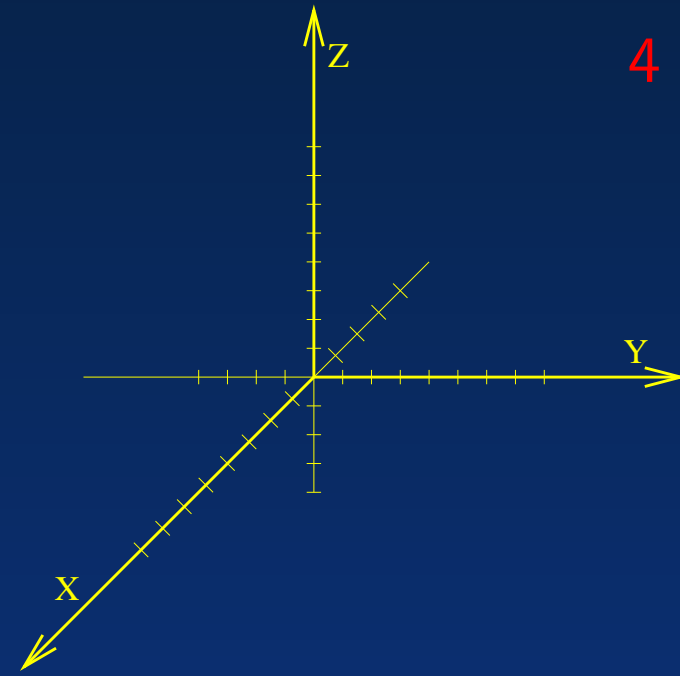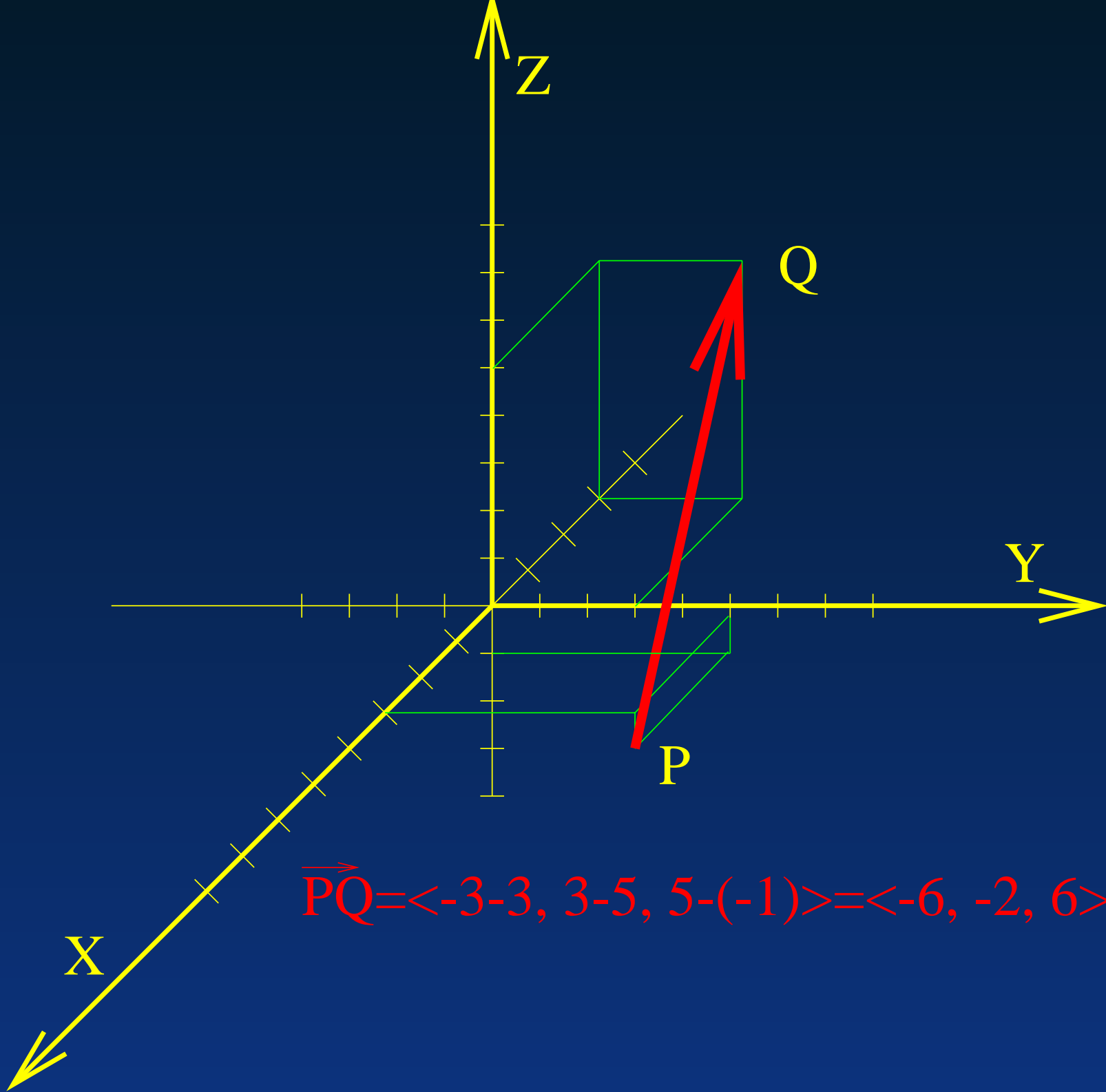
Problem

Plot the points $P(3, 5, -1)$ and $Q(-3, 3, 5)$ on a $3D$ graph with the axes orientated the same way as the graph to the right. Draw the vector $\vec{PQ}$ and write $\vec{PQ}$ using the $\langle ?, ?, ? \rangle$ notation.

Z

Q

Y

X

P

$\overrightarrow{PQ}=\langle -3-3,\ 3-5,\ 5-(-1)\rangle=\langle -6,\ -2,\ 6\rangle$

1

2

3

4

1

2

3

4