

Precalc BC

2D Squares and Roots

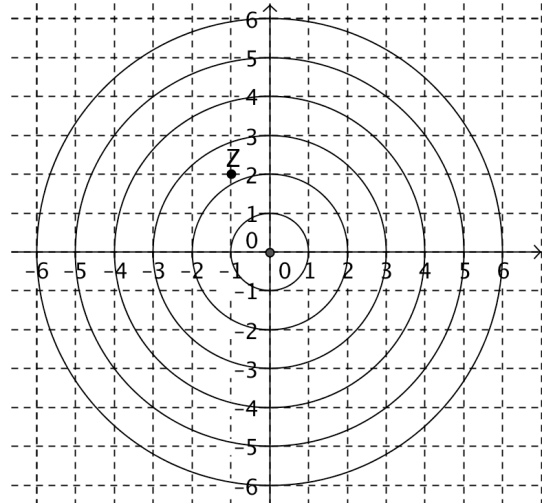
Name:

1. Determine Z^2 in two ways:

$$Z = \langle -1, 2 \rangle$$

First geometrically (and approximately) on the grid.

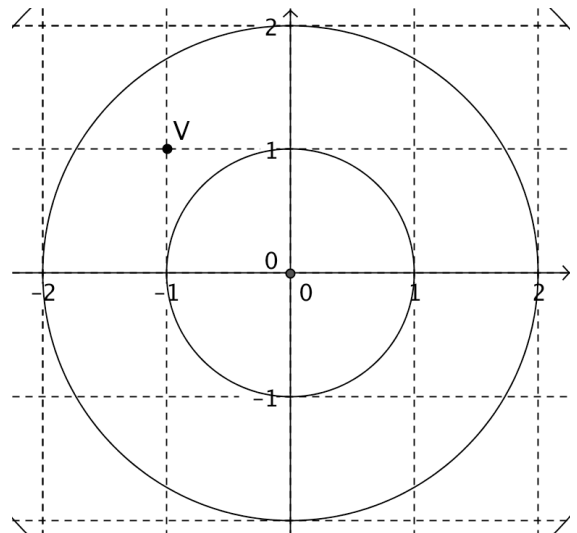
Second by manipulating in coordinate form.
Compare - the answer should have integral values.



2. Find $\frac{1}{V}$ in two ways:

a) First geometrically on the grid

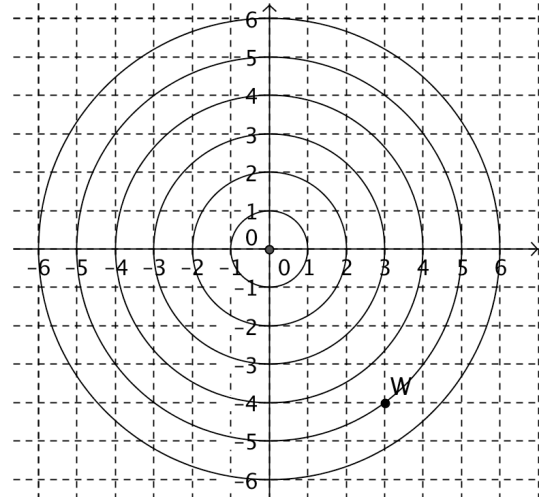
b) Second by converting to magnitude/angle form, manipulating, and converting back to coordinate form. Compare, the answer should have integral values.



3. Find the square root of $W\langle 3, -4 \rangle$

in two ways:

- a) First geometrically on the grid
- b) Second by converting to magnitude/angle form, manipulating, and converting back to coordinate form. Compare, the answer should have integral values.



c) Is there a second root?

4. Find the product of $H\langle 2, 1 \rangle$ and $I\langle -3, 1 \rangle$ in two ways:

- a) First plot geometrically.
- b) Second multiply in rectangular form. Compare.

