Topic 2 Review Answers

1. He saw four "stars" that went back and forth across Jupiter but never strayed from it. /2

2. He watched sunspots move across the surface, disappear, and return on the side they began and then repeat this motion. /2

3. The shape of the orbits of the planets are ellipses. (elliptical) /1

4. $RP = \frac{OFL}{EFL}$

$\frac{60}{1} = \frac{120}{x}$

$60x = 120$

$\frac{60x}{60} = \frac{120}{60}$

$x = 2\ cm$ /4

5. Magnification = around 2X – 4X

$RP = \frac{OFL}{EFL}$

$\frac{2}{1} = \frac{25}{x}$

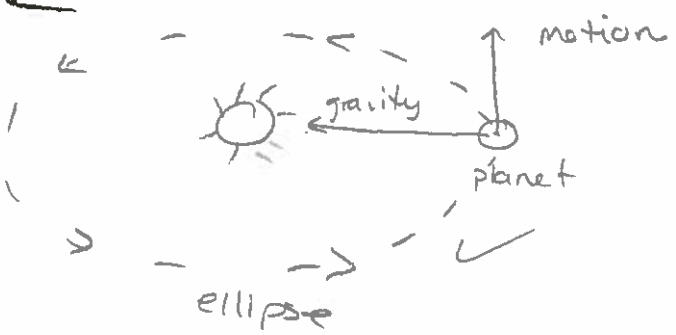
$2x = 25$

$\frac{2x}{2} = \frac{25}{2}$

$x = 12.5\ cm$ /5

6. Brahe's high precision observations forced Copernicus' and Kepler's orbital model to "match". Proving the sun – centered model. /1

7. The force of gravity pulls just hard enough on the bodies in the solar system to balance against other pulling forces to bend their motions into stable orbits. /2



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