The Venus-Sun distance

Quiz – Basic Level

Name: _____ Class: _____

Mark the proper way to end each sentence. Only one answer is possible.

1. In this laboratory you calculated

- ☐ the Earth-Sun distance.
- ☐ the Venus-Sun distance, using proportionality.
- ☐ the Venus-Sun distance, using an odometer.
- ☐ the Venus-Sun travel cost.

2. During a Venus transit

- ☐ Venus, the Earth and the Sun are aligned, with the Earth between Venus and the Sun.
- ☐ Venus, the Earth and the Sun are aligned, with Venus between the Earth and the Sun.
- ☐ Venus explodes in the Sun.
- ☐ Venus is hidden by the Sun.

3. Parallax is

- ☐ a trick often used by magicians.
- ☐ the different positions of a tree placed near the road as seen from different cars.
- ☐ the difference in the apparent position of an object as seen from two different places.
- ☐ the different positions from where an object can be seen in different places.

4. If we observe the transit from two different places,

- ☐ those places must be Svalbard and Canberra.
- ☐ the universe will collapse.
- ☐ we will see two Venus' shadows in the Sun.
- ☐ Venus would seem to be in two different positions, depending where you observe it from.

5. We measured the distances between A and B and between A' and B' because with those values

- ☐ and our knowledge about proportional triangles, we obtained the Venus-Sun distance.
- ☐ we used coordinates and measured distances in an image.
- ☐ we can find out the length of the red triangle's shorter edge.
- ☐ we can find out how to travel to Venus and to the Sun.

6. To measure the difference in the apparent position of Venus as seen by Alice and Brian we

- ☐ used proportionality and parallax, to obtain the needed quantities.
- ☐ used the coordinates from Canberra and Svalbard.
- ☐ travelled to Venus and make the measurements in Venus' surface.
- ☐ merged two images, one from each one, and measure the distance in the resultant image.

7. To measure the distance between A and B we

- ☐ used the coordinates from Canberra and Svalbard.
- ☐ walked from A to B.
- ☐ used proportionality and parallax, to obtain the needed quantities.
- ☐ merged two images, one from each one, and measure the distance in the resultant image.

8. To finally obtain the Venus-Sun distance, you had to introduce in the CESAR web tool

- ☐ the Venus-Sun distance and the distance between A' and B'.
- ☐ the distance between Alice and Brian and the distance between A' and B'.
- ☐ the distance between A and B and the Venus-Sun distance.
- ☐ the distance between Alice's and Brian's parking spots.

9. Parallax effect was useful because thanks to the fact that Venus is

- ☐ in two places at the same time, we can draw proportional triangles and use proportionality.
- ☐ seen in two different positions, we can draw proportional triangles and use proportionality.
- ☐ seen in two different positions from the same place, we can use proportionality.
- ☐ a green planet, we can draw proportional triangles and use proportionality.

10. Proportionality was useful because it helped us find

- ☐ the distance between A and B.
- ☐ a shiny treasure.
- ☐ the distance between A' and B'.
- ☐ the unknown edge of a triangle after we obtained the length of two other edges.