Trig Word Problems

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_

Algebra 2 with Trigonometry

Solve the following word problem. Show your all your work and round to 2 decimal places.

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| 1. Katie sees an airplane in the sky from her spot on the ground. The angle of elevation from Katie to the airplane is . If she steps back 100 feet, the new angle of elevation is   http://tell.cla.purdue.edu/JapanProj/FLClipart/Nouns/vehicle/airplane2.gifhttp://www.onlycoloringpages.com/wp-content/uploads/2015/11/Coloring_Page_Hot_Air_Balloon_02.png   1. Solve for y.   https://s-media-cache-ak0.pinimg.com/564x/64/7a/44/647a44f50cca3b67b89fee7148d8448d.jpg  \_\_\_\_\_\_\_\_\_\_\_   1. If Katie is 5.75 feet tall, how far off the ground is the airplane?   \_\_\_\_\_\_\_\_\_\_\_ |
| 1. Frankie sees a UFO in the sky from his spot on the ground. The angle of elevation from Frankie to the UFO is 50°. In fear, he runs back 300 feet. His new angle of elevation is 20°.   https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcR8HfxR46jUYGNx-SQvg6ZjAJcD0LrL7qWnQE_aS_YSMNFcGczm  http://tell.cla.purdue.edu/JapanProj/FLClipart/Nouns/vehicle/airplane2.gifhttp://www.onlycoloringpages.com/wp-content/uploads/2015/11/Coloring_Page_Hot_Air_Balloon_02.png   1. Solve for y.   http://images.clipartpanda.com/boy-clipart-stick-figure-b38ef65c9a450763be2449f35ad7933f.jpghttps://s-media-cache-ak0.pinimg.com/564x/64/7a/44/647a44f50cca3b67b89fee7148d8448d.jpg  \_\_\_\_\_\_\_\_\_\_\_   1. If Frankie is 6 feet tall, how far off the ground is the UFO?   \_\_\_\_\_\_\_\_\_\_\_ |

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| 1. Brendan sees a kite in the sky from his spot on the ground. The angle of elevation from Brendan to the kite is 65°. If he steps back 275 feet, the new angle of elevation is 3 2. Solve for y. 3. If Brendan is 6.25 feet tall, how far off the ground is the kite?   \_\_\_\_\_\_\_\_\_\_\_ |

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| 1. John sees an eagle in the sky from his spot on the ground. The angle of elevation from John to the eagle is 45°. In fear, he runs back 150 feet. His new angle of elevation is 10°. 2. Solve for y. 3. If John is 5.5 feet tall, how far off the ground is the eagle?   \_\_\_\_\_\_\_\_\_\_\_ |