Lesson 8.4 Practice: Problems in Three Dimensions

School Launch · Trigonometry · Unit 8: Applications · Worksheet A

Scientific calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. A box is $13 \times 14 \times 10$. Find the space diagonal and the angle it makes with the base (nearest tenth). EASY

2. A box is $8 \times 8 \times 9$. Find the space diagonal and the angle it makes with the base (nearest tenth). EASY

3. A box is $3 \times 15 \times 10$. Find the space diagonal and the angle it makes with the base (nearest tenth). EASY

4. A box is $3 \times 8 \times 4$. Find the space diagonal and the angle it makes with the base (nearest tenth). MEDIUM

5. A box is $13 \times 6 \times 8$. Find the space diagonal and the angle it makes with the base (nearest tenth). MEDIUM

6. A box is $8 \times 7 \times 6$. Find the space diagonal and the angle it makes with the base (nearest tenth). MEDIUM

7. A box is $3 \times 13 \times 2$. Find the space diagonal and the angle it makes with the base (nearest tenth). MEDIUM

8. A box is $10 \times 8 \times 11$. Find the space diagonal and the angle it makes with the base (nearest tenth). HARD

9. A box is $7 \times 7 \times 12$. Find the space diagonal and the angle it makes with the base (nearest tenth). HARD

10. A box is $13 \times 2 \times 5$. Find the space diagonal and the angle it makes with the base (nearest tenth). HARD