

Chapter 2 Problem Wrap-Up

Student Text Page

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Suggested Timing

30 min

Tools

- scientific calculators

Related Resources

BLM 2.CP.1 Chapter 2 Problem
Wrap-Up Rubric

Summative Assessment

- Use **BLM 2.CP.1 Chapter 2 Problem Wrap-Up Rubric** to assess student achievement.

Teaching Suggestions

- You may wish to use the Chapter Problem Wrap-Up as a summative assessment. If you have used the chapter questions throughout the chapter, then the Wrap-Up question will consolidate the Chapter Problem questions.
- Alternatively, you may wish to use all the Chapter Problem questions as a summative piece at the end of the chapter.

Level 3 Sample Response

a) $x^2 + y^2 = r^2$

$$2.1^2 + 25^2$$

$$10.66 = r^2$$

$$r \doteq 3.26497$$

Jeff needs to make a brace of length 3.26 m.

b) $\tan q = \frac{2.5}{2.1}$

$$q \doteq 49.9697^\circ$$

The brace makes an angle of about 50° with the ground.

c) I used the tangent ratio because I knew the lengths of the sides opposite the angle and adjacent to the angle.

d) $\sin q = \frac{2.5}{3.26}$

$$q \doteq 50.0737^\circ$$

$$\cos q = \frac{2.1}{3.26}$$

$$q \doteq 49.8964^\circ$$

I get the same answer when I use the sine and cosine ratios.

Level 3 Notes

Look for the following:

- Diagram included with the answer
- The proper form for the answer showing the Pythagorean theorem in general and then replacing the variables appropriately
- An explanation in sentence form at the end of each part to explain what it is they have found
- Most steps shown and student is able to get the correct answer

What Distinguishes Level 2

At this level, look for the following:

- Diagram is missing
- Values are in the incorrect places (e.g., $1.1^2 = 1.3^2 + r^2$, or another variation)
- Point form or incomplete responses to the questions posed
- No steps shown, just a value for the answer

What Distinguishes Level 4

At this level, look for the following:

- Well-drawn and appropriate diagram with each part of the question
- Proper form and each step in detail
- Sentence-form explanation for each answer found in each part
- In part c), a comment that the use of the tangent ratio is the most appropriate since those values were given and so there is little room for error. If the student uses the sine or cosine ratio, it will include the value found in part a) and so if that value is incorrect, then the other parts will also be incorrect