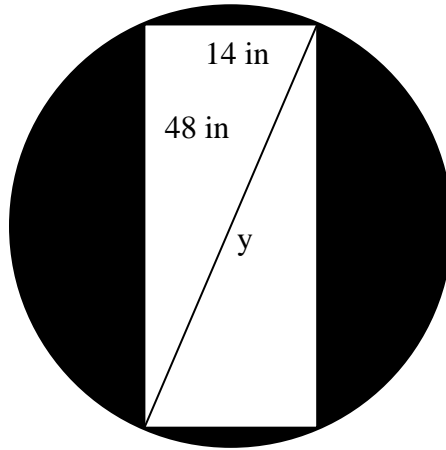


PYTHAGOREAN THEOREM

A) In the figure below, the rectangle has length of 48 inches and width of 14 inches. The diagonal of the rectangle measures y . Find the area of the shaded region.



- 1) Clearly state the overall strategy (**plan**), no numbers are used to solve this problem.
- 2) Show the process (work) for each step
- 3) Explain each step and give reasoning (purpose of the step)
- 4) Explain, in this problem, how the diameter and hypotenuse are related.
- 5) Explain when the Pythagorean Theorem can be used & why it is used in this problem.
- 6) When a formula is used, state it and state what it is used to calculate.
- 7) Accurately calculate the area of the shaded region.