

USING VISUAL MODELS TO UNDERSTAND AND SOLVE PROBLEMS

READ

Read slowly and carefully.

Underline words or phrases which indicate quantities or operations.

Underline words or phrases which indicate relationships of size, shape or position.

COLLECT AND RECORD INFORMATION

Construct a model to observe the relationships in the problem.

physical models - concrete objects or people or actions

written models - lists or tables

graphic models - pictures or diagrams or graphs

Sketch your model on paper.

Label all parts of the model:

- indicate all known quantities

- mark any quantities to be found

Check that your sketch satisfies the conditions given in the problem.

ANALYZE

Determine the operations to be performed.

State the problem in numerical form.

SOLVE

Perform all computations.

Answer all questions asked.

Check that all answers satisfy the conditions of the problem.

example:

Hank is the fifth tallest boy in a group, and half the group is shorter than he.
How many boys are in the group?