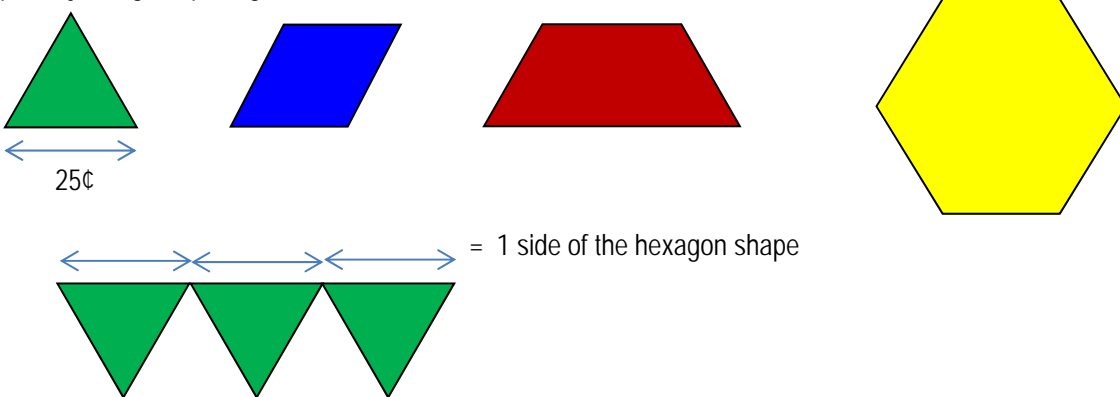Pattern Block Patio

Your parents are building a stone patio in the back yard.   You may help decorate one special area of the patio, using specially-shaped paving tiles. All of the other stones are hexagonal, so your design must also be a hexagon shape when you are finished. Your tiles must be able to fit into an empty hexagonal spot.   In order to be colorful, you have been instructed to use at least three of the available shapes.   You **may** use as many as you want, but you **must** use at least three different shapes.   Use triangle grid paper to plan your hexagonal design.   Each side of your hexagon must equal three sides of the green triangle.   Note: You do not HAVE to use green triangles if you choose not to, but use that shape to determine the size of your hexagon on the grid paper.

The price of the green tile is 25¢.   The prices of the other tiles are based on fractional equivalents. For example: how many greens = one blue?   Use pattern blocks to build your design, and then tell your parents how much your specially designed paving stone will cost.

25¢

= 1 side of the hexagon shape

Novice	No strategy is chosen or a strategy is chosen that will not lead to a solution. Little or no evidence of engagement in the task. Neither correct reasoning nor justification for reasoning is present. Little or no communication of an approach is evident with mathematical language. No connections are made. No attempt is made to construct mathematical representations.
Apprentice	A partially correct strategy is chosen. Evidence of previous knowledge. Arguments are made with some mathematical basis. Some formal math language is used, and examples are provided to communicate ideas. Some effort is made to relate to own interests and experiences. An attempt is made to construct mathematical representations to record and communicate problem solving.
Practitioner	A correct strategy is chosen. Evidence of applying prior knowledge is present. Arguments are constructed with adequate mathematical knowledge. Systematic approach or correct reasoning is present. Precise math language is used with audience in mind. Mathematical connections are recognized. Appropriate mathematical are presentations are used.
Expert	An efficient strategy is used. A correct answer is given. Evidence is used to justify and support decisions. Precise math language is used to communicate to an appropriate audience. Mathematical connections or observations are used to extend the solution. Abstract or symbolic mathematical representations are constructed to analyze relationships, extend thinking and clarify or interpret phenomenon.