Problem-Solving Strategy: Guess and Check

Use the diagram and the questions to help you solve.

1. Arrange the numbers 5–9 in the circles so that the sum of the numbers along each line is the same.

What do you know about each line of three circles?

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How will you make your first guess?

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Can you complete a second row to get the same sum as the first row you completed?

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If not, how can you make a better first guess?

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Can you complete a third row to get the same sum as the first two rows you completed?

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If not, how can you make a better first guess?

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Do all the groups of three have the same sum? _____________________________

2. On a separate sheet of paper, make a pattern like the one in Problem 1, except do not use a center circle. Arrange the numbers −1, 0, 4, 5, 7, 10, 11, and 12 in the circles so that the sum of the three numbers forming right angles around each corner equals 22. Use each number once and only once.