

LOGIC  
PROBLEMS  
FOR STUDENT GROUPS

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## PROBLEM 8

Teacher Guide

# The Neighborhood



## Problem

Arrange the homes of the five families that live on Elm Street.

## Clues

- Andrea Smith lives north of her best friend, Melissa Jones.
- The Clarks would like to have neighbors across the street.
- The Clarks live between the Joneses and the Garcias.
- The Hongs, who live west of the vacant lot, do not live next door to the Smiths.
- Each summer, the neighbors have a barbecue in the vacant lot (not essential to solve problem).

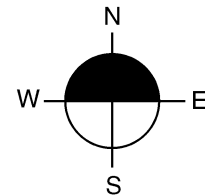
## Solution

- Since the Clarks live between the Joneses and the Garcias, the vacant lot and the Smith and Hong houses are all on the other side of the street.
- Andrea Smith lives north of Melissa Jones, so the Joneses live on the south side of the street, along with the Clarks and the Garcias.
- The Hongs live west of the vacant lot, but not next to the Smiths. Therefore, the order on that side of the street must be Hong, vacant lot, Smith.
- Since the Smiths live north of the Joneses, and the Clarks are between the Garcias and the Joneses, the order on the south side of the street must be Garcia, Clark, Jones.

HONG	VACANT LOT	SMITH
GARCIA	CLARK	JONES

## Problem 8—The Neighborhood







<p style="text-align: center;"><b>The Neighborhood</b> </p> <p style="text-align: center;">(Read this clue aloud to the group.)</p> <hr style="border: 1px dashed black;"/> <p><b>Problem</b></p> <p>Arrange the homes of the five families that live on Elm Street.</p>	<p style="text-align: center;"><b>The Neighborhood</b> </p> <p style="text-align: center;">(Read this clue aloud to the group.)</p> <hr style="border: 1px dashed black;"/> <p>The Clarks live between the Joneses and the Garcias.</p>
<p style="text-align: center;"><b>The Neighborhood</b> </p> <p style="text-align: center;">(Read this clue aloud to the group.)</p> <hr style="border: 1px dashed black;"/> <p>Andrea Smith lives north of her best friend, Melissa Jones.</p>	<p style="text-align: center;"><b>The Neighborhood</b> </p> <p style="text-align: center;">(Read this clue aloud to the group.)</p> <hr style="border: 1px dashed black;"/> <p>The Hong, who live west of the vacant lot, do not live next door to the Smiths.</p>
<p style="text-align: center;"><b>The Neighborhood</b> </p> <p style="text-align: center;">(Read this clue aloud to the group.)</p> <hr style="border: 1px dashed black;"/> <p>The Clarks would like to have neighbors across the street.</p>	<p style="text-align: center;"><b>The Neighborhood</b> </p> <p style="text-align: center;">(Read this clue aloud to the group.)</p> <hr style="border: 1px dashed black;"/> <p>Each summer the neighbors have a barbecue in the vacant lot.</p>



CUTOUT PIECES

CLARK	GARCIA	JONES	SMITH	HONG	VACANT LOT
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## Problem 13—Carol’s Number Hunt

<p><b>Carol’s Number Hunt</b>  (Read this clue aloud to the group.)</p> <hr/> <p><b>Problem</b></p> <p>Carol has not told anyone the number she is thinking of.</p> <p>Carol is thinking of a number between 1 and 100. What is it?</p>	<p><b>Carol’s Number Hunt</b>  (Read this clue aloud to the group.)</p> <hr/> <p>Carol’s number is even.</p>
<p><b>Carol’s Number Hunt</b>  (Read this clue aloud to the group.)</p> <hr/> <p>The number is greater than 50.</p>	<p><b>Carol’s Number Hunt</b>  (Read this clue aloud to the group.)</p> <hr/> <p>Carol’s number is one less than a multiple of five.</p>
<p><b>Carol’s Number Hunt</b>  (Read this clue aloud to the group.)</p> <hr/> <p>The number is one greater than a multiple of three.</p>	<p><b>Carol’s Number Hunt</b>  (Read this clue aloud to the group.)</p> <hr/> <p>The sum of the digits of Carol’s number is an even number.</p>