

DIG INTO EQUATIONS: A POLYGON AREA PUZZLE

1. Build equations based upon the areas of the shapes. Record several in the table below.

Example: $A = 2B$.

2. How could you sort these equations into categories?

3. Given: $H = 36$ square units;

$$G = \underline{\hspace{2cm}}; \quad \frac{1}{3}J = \underline{\hspace{2cm}}; \quad A + B = \underline{\hspace{2cm}}$$

4. Explain why $2G + H = P + 2(N + D)$.

5. Find D if $G = 3$, $H = 18$, $P = 12$, and $N = 2$.

6. Finish the Equation column (the first two are done as examples)

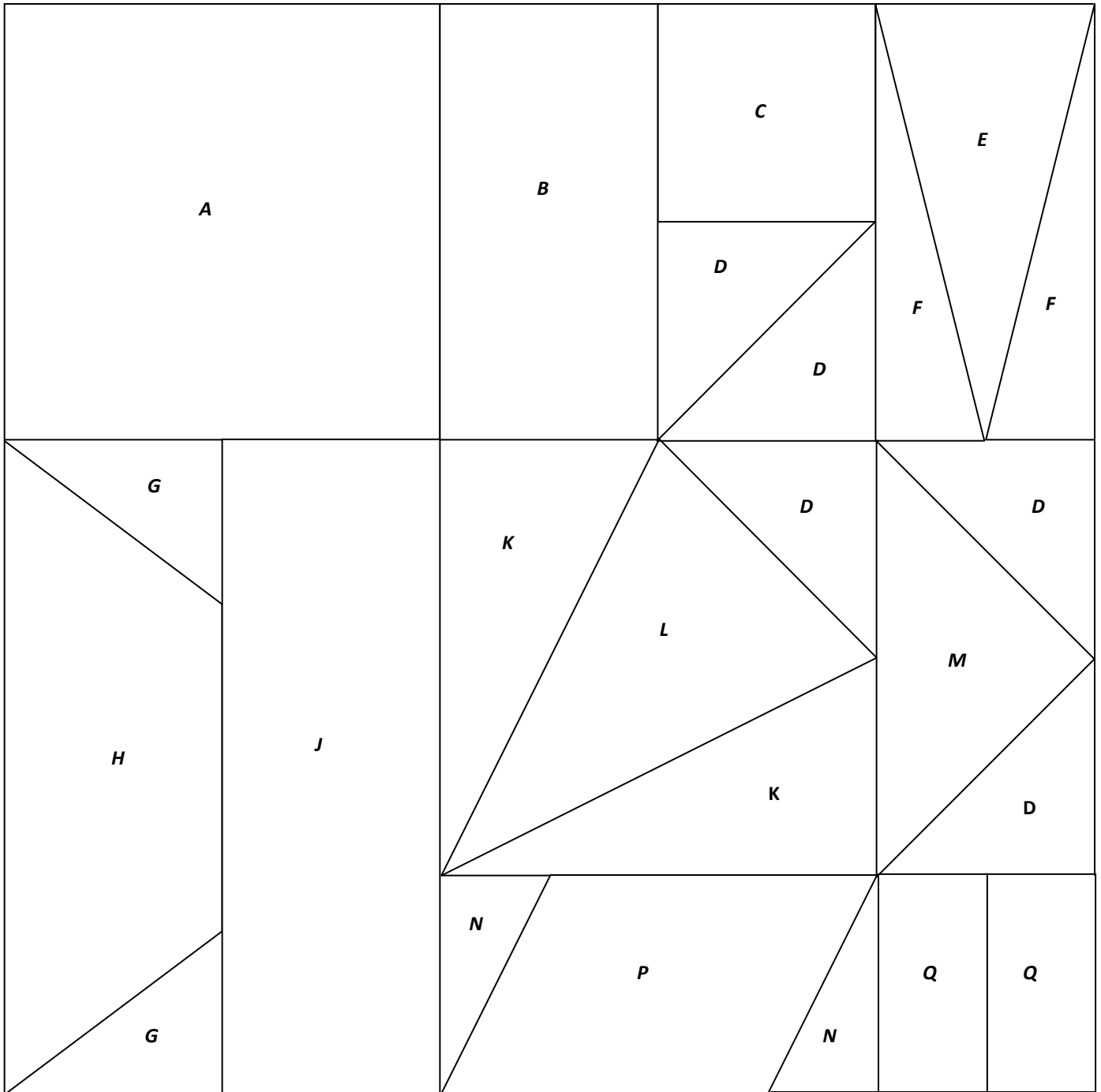
Given expression	Written in terms of this variable	Equation
A	B	$A = 2B$
B	A	$B = \frac{1}{2}A$
$B + C$	D	$B + C = \underline{\hspace{2cm}}$
J	A	
$2(B + C)$	J	

Adapted from *MathLinks: Grade 7*

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POLYGON PUZZLE PIECES



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