Today’s resource features two questions from the recently released 2020 CEMC Mathematics Contests.

**2020 Euclid Contest, #3(a)**

Donna has a laser at $C$. She points the laser beam at the point $E$. The beam reflects off of $DF$ at $E$ and then off of $FH$ at $G$, as shown, arriving at point $B$ on $AD$. If $DE = EF = 1$ m, what is the length of $BD$, in metres?

**2020 Euclid Contest, #5(b)**

Determine all triples $(x, y, z)$ of real numbers that satisfy the following system of equations:

\[
(x - 1)(y - 2) = 0 \\
(x - 3)(z + 2) = 0 \\
x + yz = 9
\]

**More Info:**
Check out the CEMC at Home webpage on Monday, May 25 for solutions to the Contest Day 3 problems.