

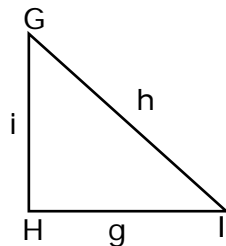
### Proving the Formula $A = \frac{1}{2} ab \sin(C)$ - Matching Worksheet

Write the letter of the answer that matches the problem.

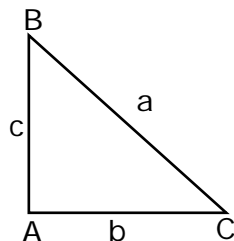
\_\_\_\_\_ 1. In triangle QRS. Side  $q = 6$ , side  $r = 7$ , and  $S = 12^\circ$ . Prove: Find the area of triangle by sin rule formula. a. 0.9375

\_\_\_\_\_ 2. In triangle EFG Area of triangle = 180,  $e = 24$ ,  $f = 16$ . Find the value of  $\sin G$ . b. Yes

\_\_\_\_\_ 3. In triangle GHI, side  $i = 6$ , side  $h = 8$ . Find the side  $g$ . c. 5.29



\_\_\_\_\_ 4. Can you prove: The area of triangle  $ABC = \frac{1}{2} ab \sin C$ . d. No



\_\_\_\_\_ 5. Acute triangle DEF, with  $d, e, f$ , being the respective opposite sides to angle D, angle E, angle F, and altitude,  $h$ , drawn from angle E to  $e$ . Can you prove: The area of triangle DEF =  $\frac{1}{2} de \sin D$ . e. 4.366

