

Name _____

Due Date _____

Block _____

Intro to Proofs #1.1

① Given: $AB = CD$
Prove: $2 \cdot AB = 2 \cdot CD$

② Given: $AB = CD$
Prove: $\frac{AB}{3} = \frac{CD}{3}$

③ Given: $AB = CD$
Prove: $CD + AB = 2 \cdot CD$

④ Given: $AB = CD$
 $EF = GH$
Prove: $\frac{AB}{EF} = \frac{CD}{GH}$

⑤ Given: $AB = CD$
 $EF = GH$
Prove: $AB = \frac{CD}{GH} \cdot EF$

⑥ Given: $AB = CD$
Prove: $AB = \frac{CD + AB}{2}$

⑦ Given: $3 \cdot AB = CD$
Prove: $6 \cdot AB = 2 \cdot CD$

⑧ Given: ~~AB~~ $AB = 5$
Prove: $2 \cdot AB = 10$

⑨ Given: $LM + 5 = 8$
Prove: $LM = 3$

⑩ Given: $2LM + 7 = 12$
Prove: $LM = \frac{5}{2}$

⑪ Given: $m \angle ABC = 110^\circ$
Prove: $\frac{1}{2} \cdot m \angle ABC = 55^\circ$

⑫ Given: $2AC = AB$
 $AB = 14$
Prove: $AC = 7$

⑬ Given: $AB = CD$
 $EF = GH$
 $LM = NO$
Prove: $AB + EF + LM = CD + GH + NO$

⑭ Given: ~~AB + CD = LM~~
 $AB + CD = LM$
 $AB = CD$
Prove: $CD = \frac{LM}{2}$