## Application Exercise 1



To prove $\triangle \mathrm{DBC} \cong \triangle \mathrm{ABC}$ which information would be most helpful?
(A) $\angle \mathrm{BDC}=\angle \mathrm{BAC}$
(B) $\quad \overline{\mathrm{DB}} \cong \overline{\mathrm{AB}}$
(C) $\angle \mathrm{BCD}=\angle \mathrm{BCA}$
(D) $\overline{\mathrm{DC}} \cong \overline{\mathrm{AC}}$

How are they proved to be congruent? (SSS, ASA, SAS or RHS)

| Method | Statement | Reason |
| :--- | :--- | :--- |
| $S$ | $\overline{B C} \cong \overline{B C}$ | The triangles share a side |
|  |  |  |
|  |  |  |
|  | $\triangle D B C \cong \triangle A B C$ |  |
|  |  |  |

## Application Exercise 2

INTRO: Why would a builder use SSS to make identical wooden trusses for a roof?


A designer wants to make a wall pattern out of congruent triangles. Which method would be the most useful for cutting out the shapes?

| (A) | SSS |
| :--- | :--- |
| (B) | SAS |
| (C) | ASA |
| (D) | RHS |

What tools would they need for the chosen method?

