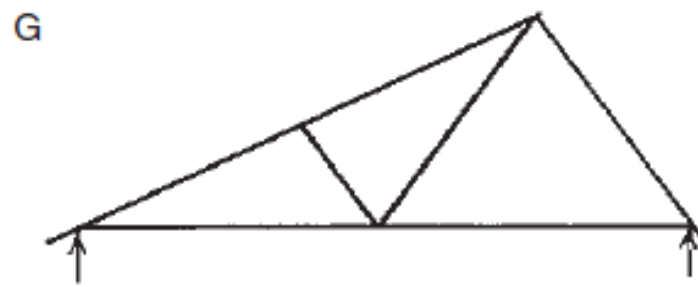
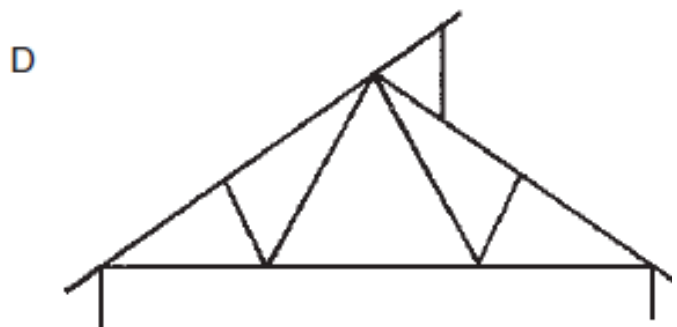
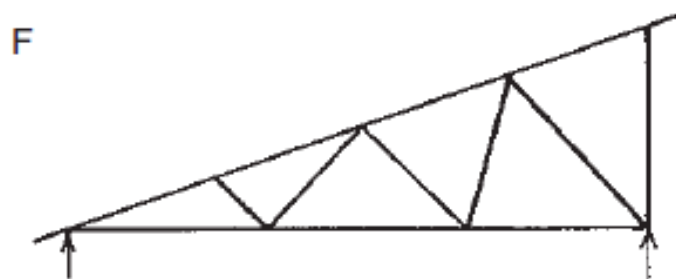
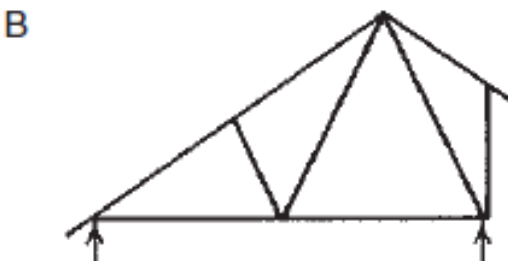
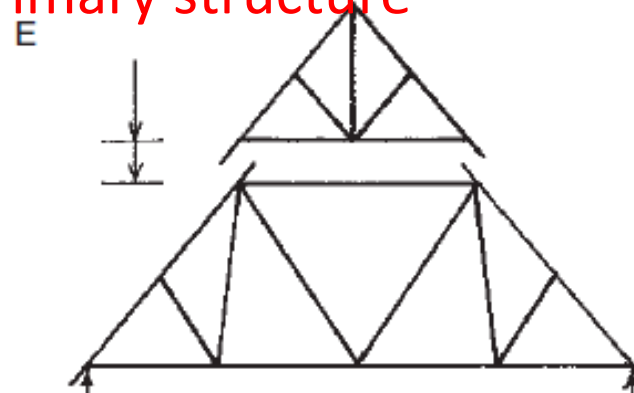
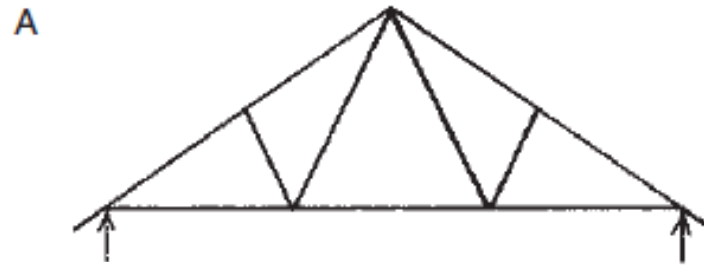


PERENCANAAN TEKNOLOGI & SISTEM BANGUNAN (PTSB) 03

Step 2: Design and place a primary structure



OUTLINE

BUILDING SYSTEM
Structural system
Modular
co-ordination

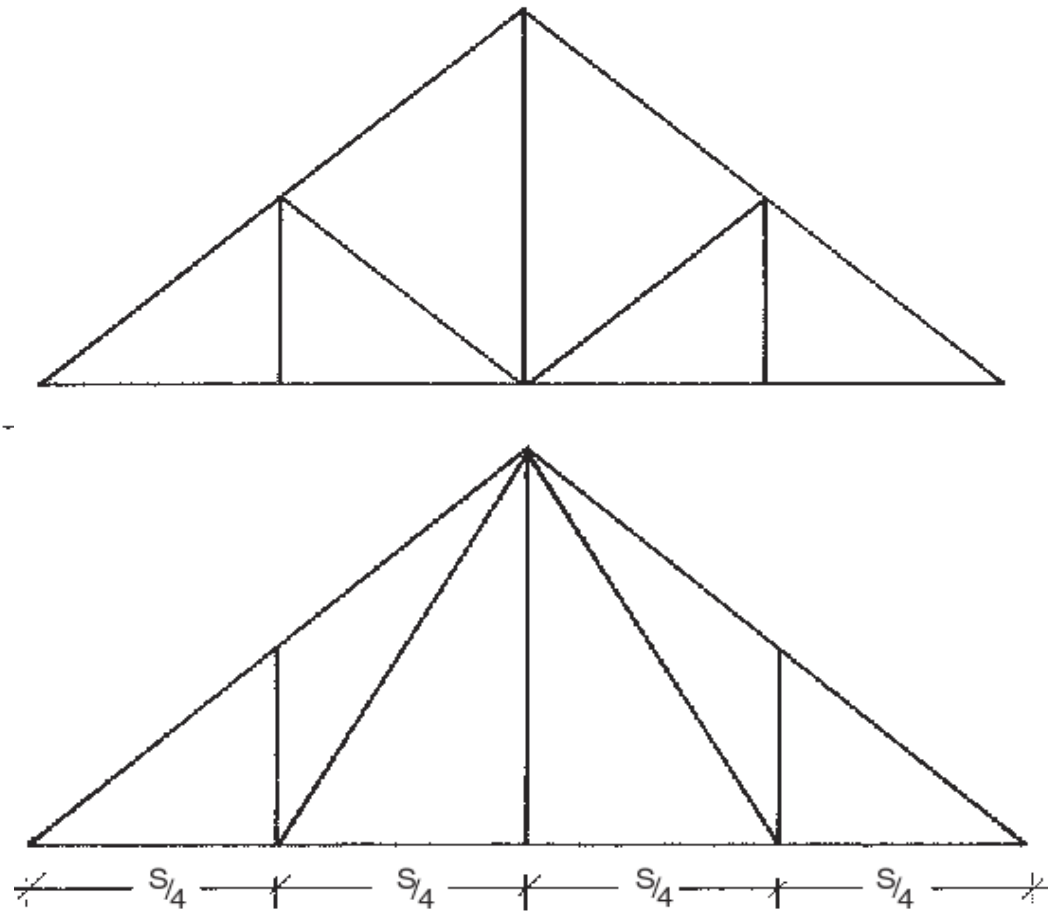
STATICS

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CONSTRUCTION
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Steel

Step 2: Design and place a primary structure



Howe & Fan truss shape

OUTLINE

BUILDING SYSTEM
Structural system
Modular
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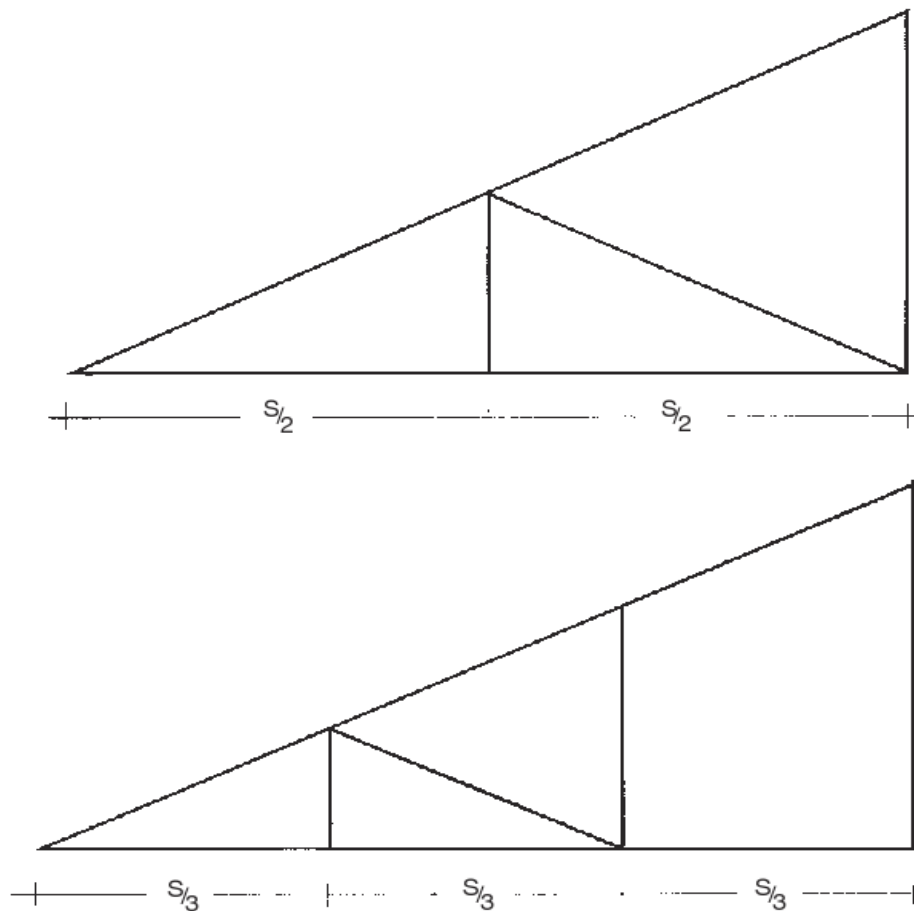
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Step 2: Design and place a primary structure



Mono pitch truss shape (2 – 4 m)

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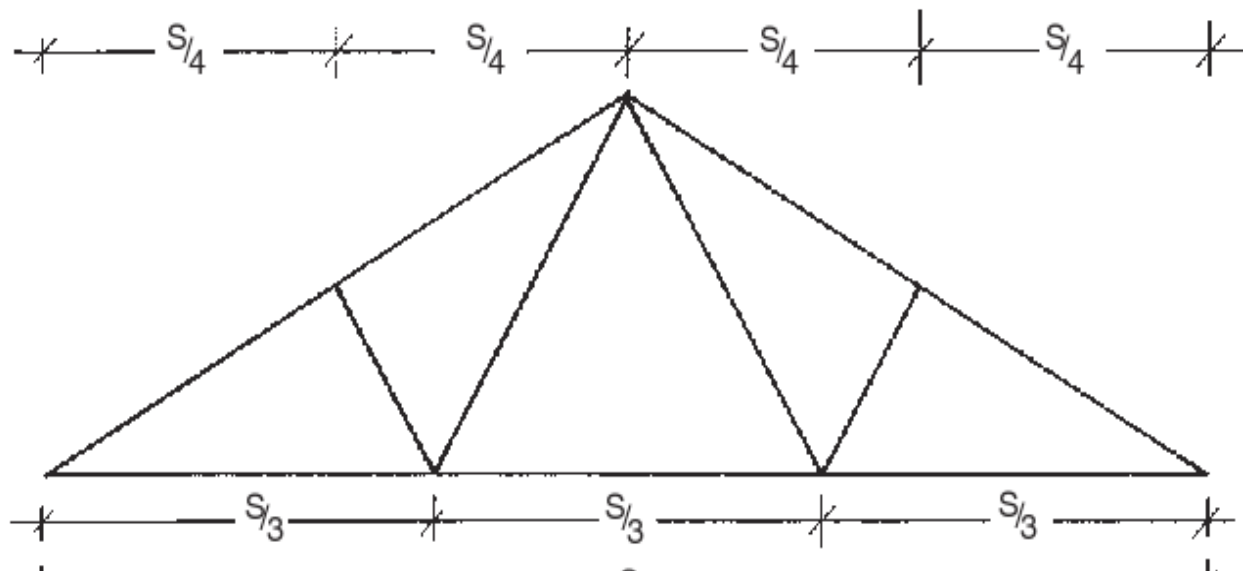
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Step 2: Design and place a primary structure



Fink truss shape
8 – 9 m

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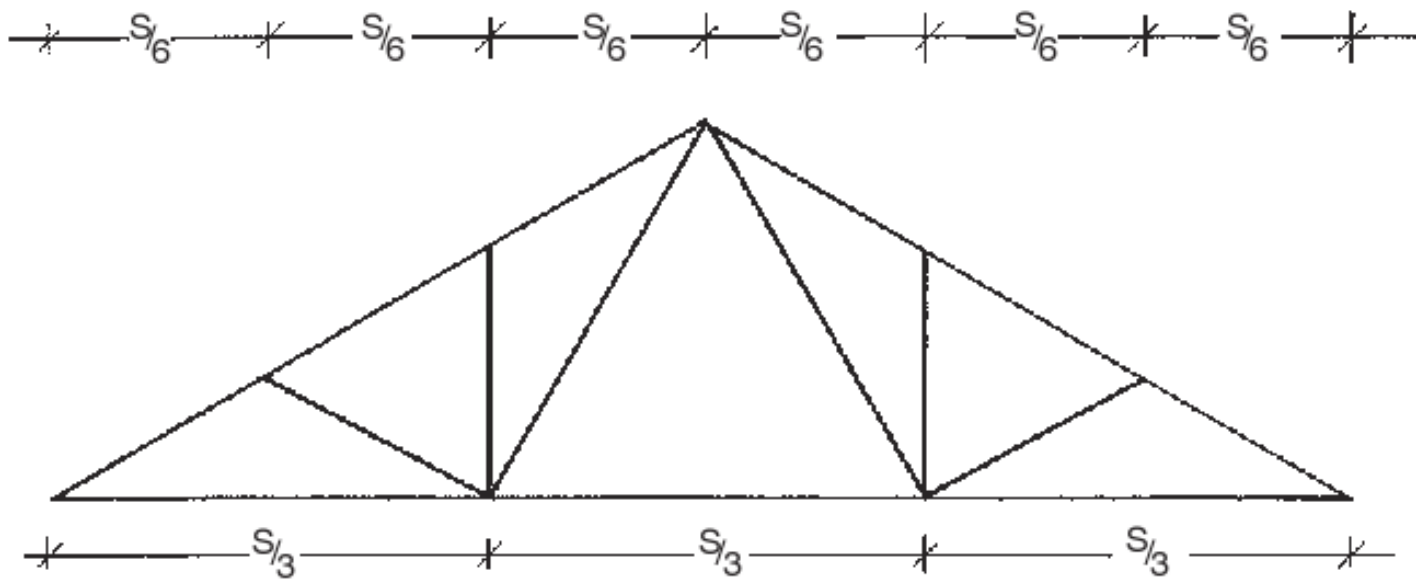
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Step 2: Design and place a primary structure



Fan truss shape
8 – 9 m

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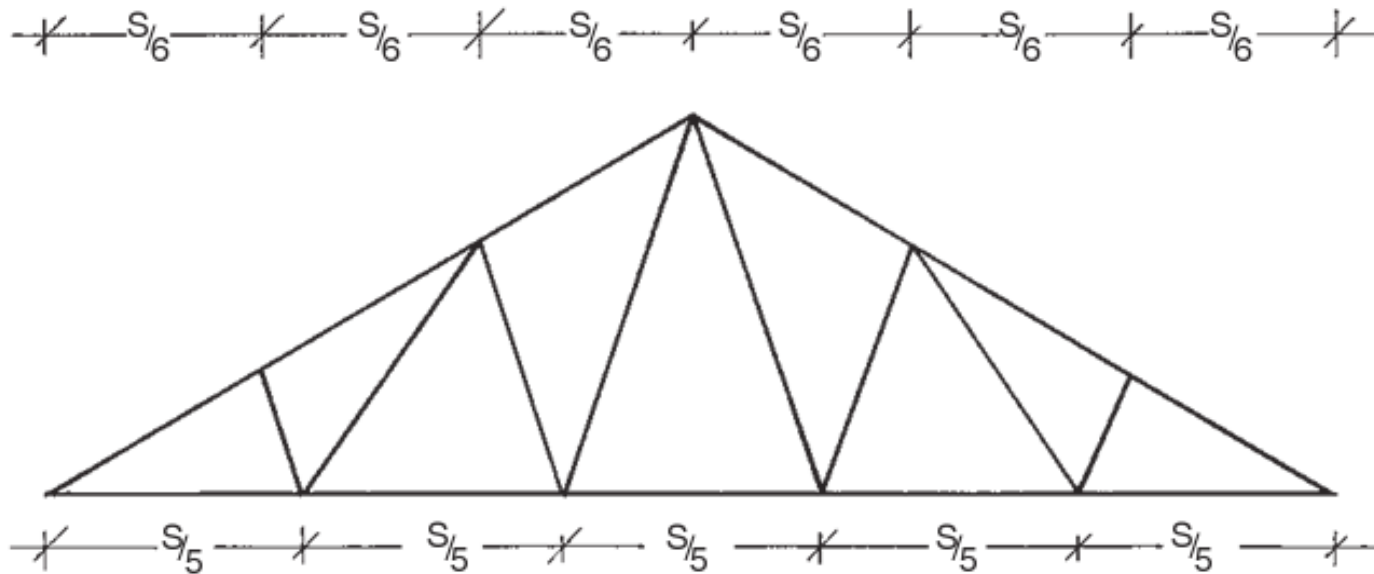
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Step 2: Design and place a primary structure



Double “W” truss shape
> 14 m

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Truss construction



Trusses support load much like beams but for longer spans. As the depth and thus dead weight of beams increases with span they become increasingly inefficient, requiring most capacity to support their own weight rather than imposed live load.

Trusses replace bulk by triangulation to reduce dead weight.



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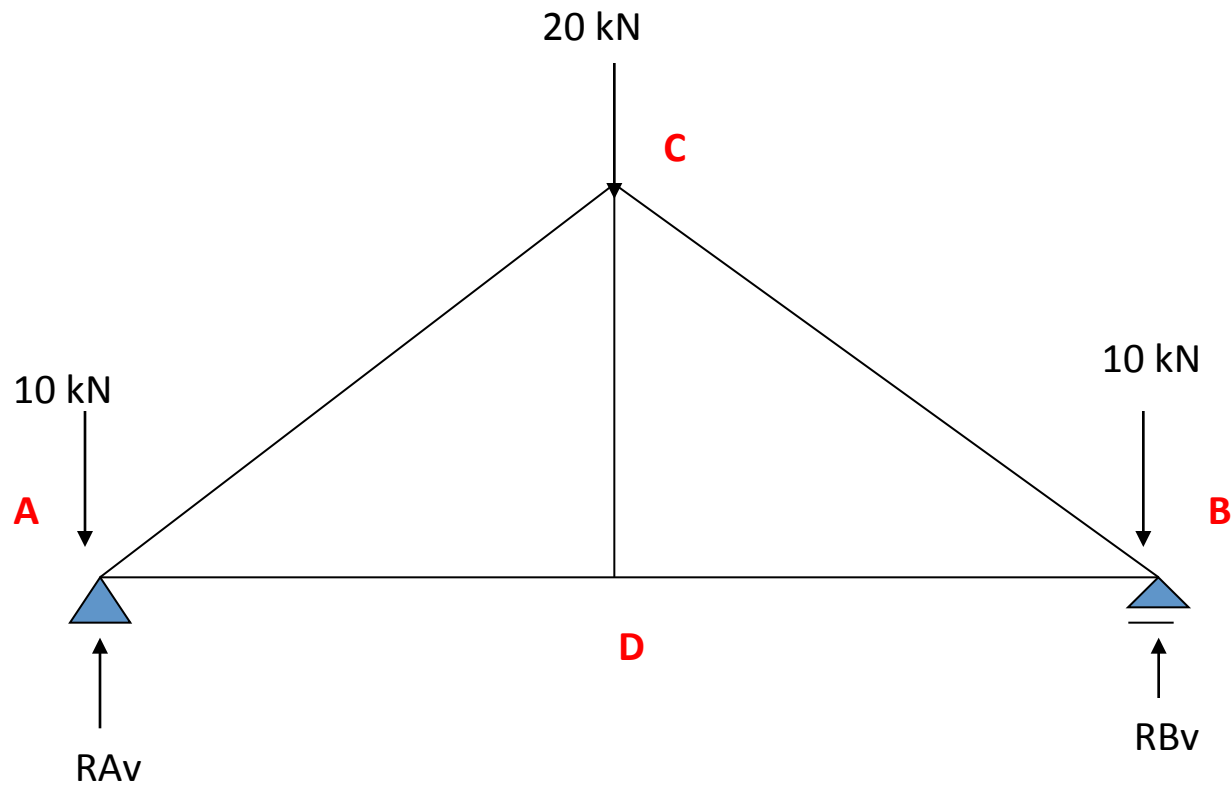
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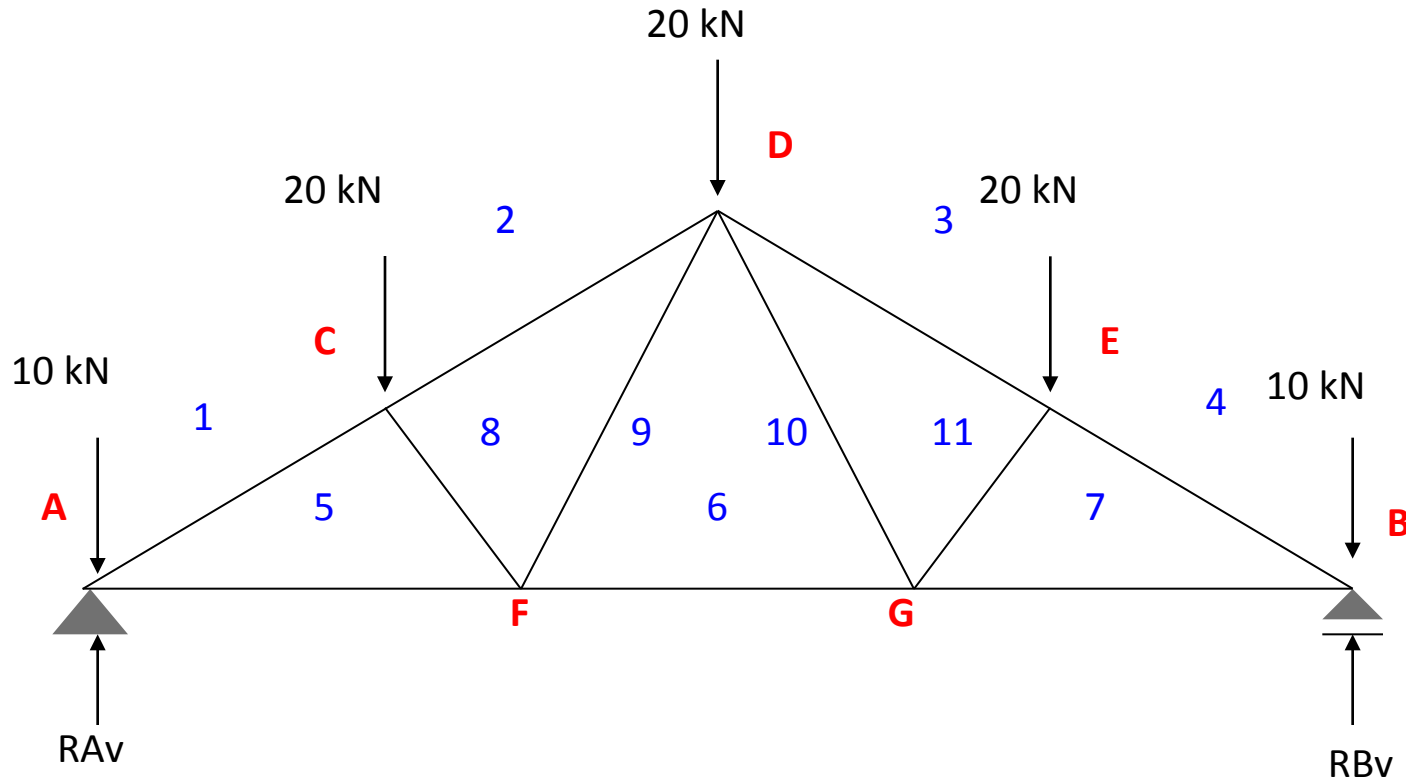
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OUTLINE

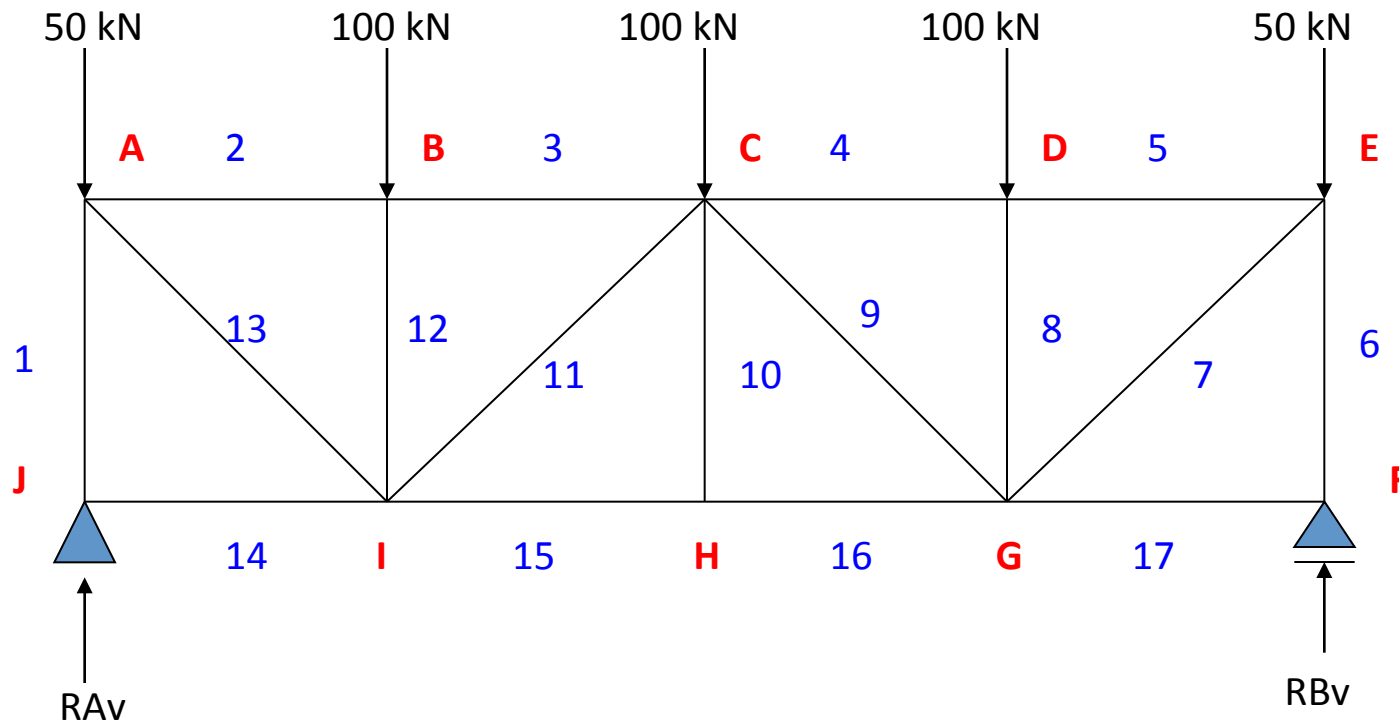
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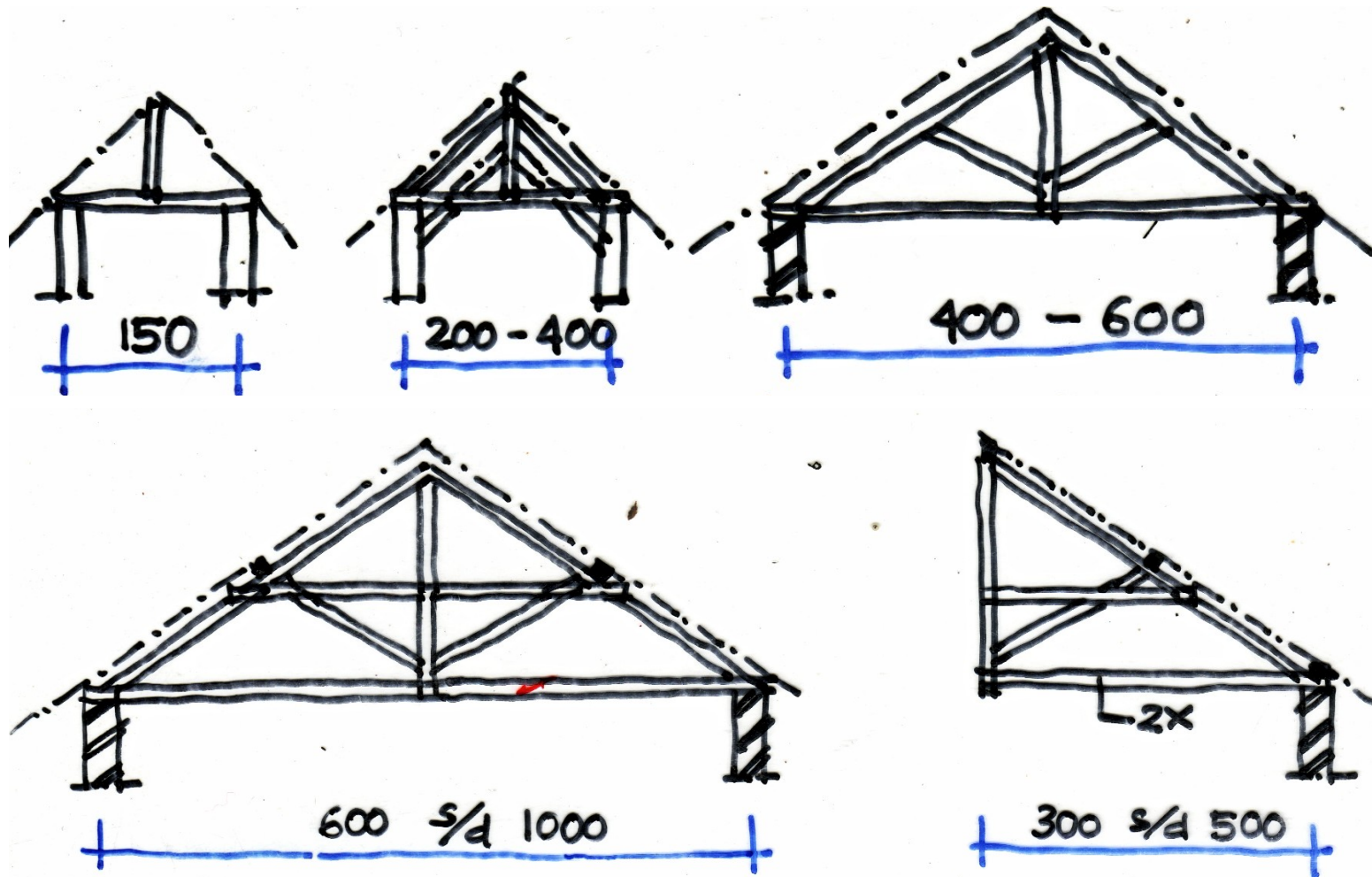
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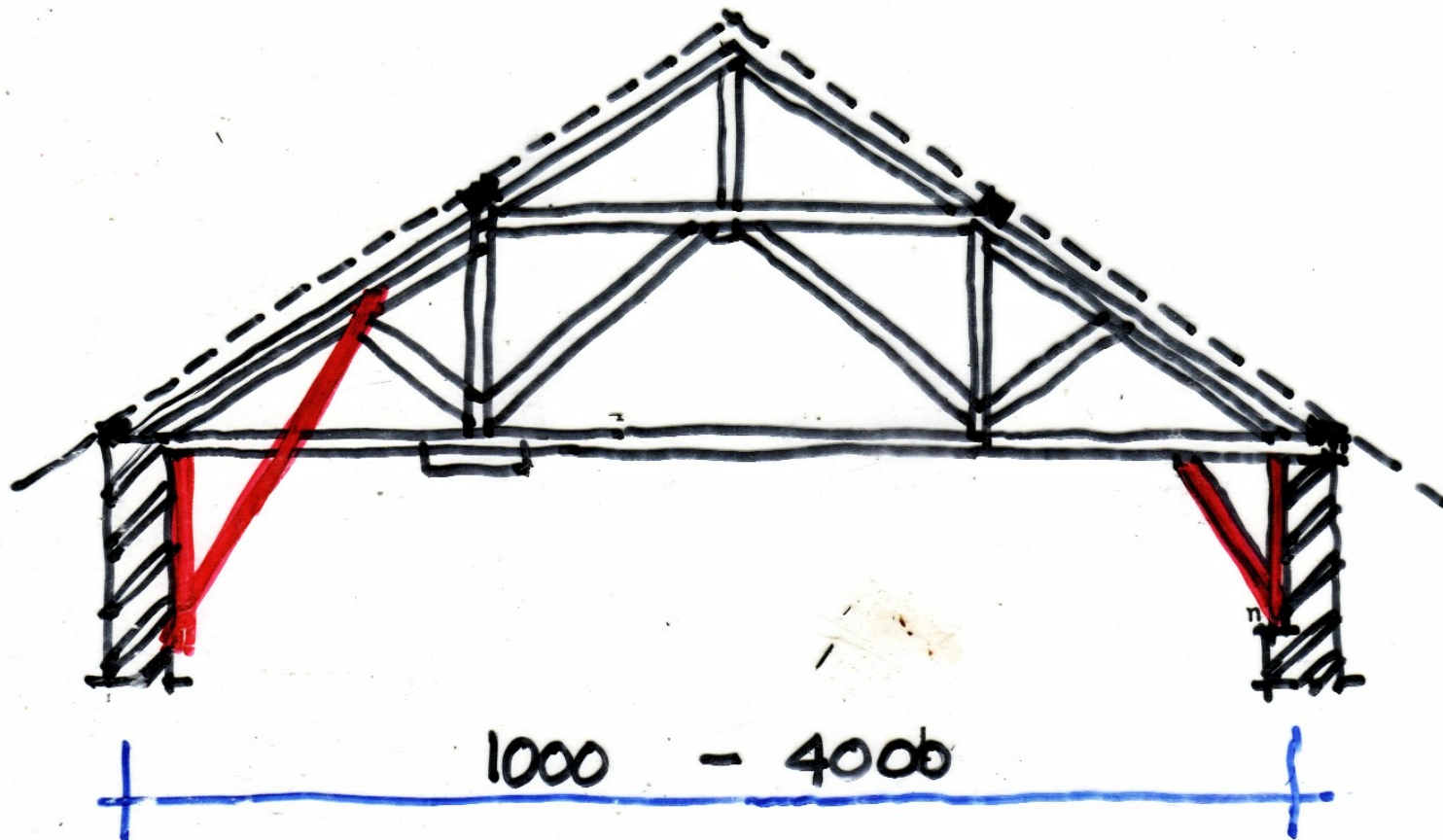
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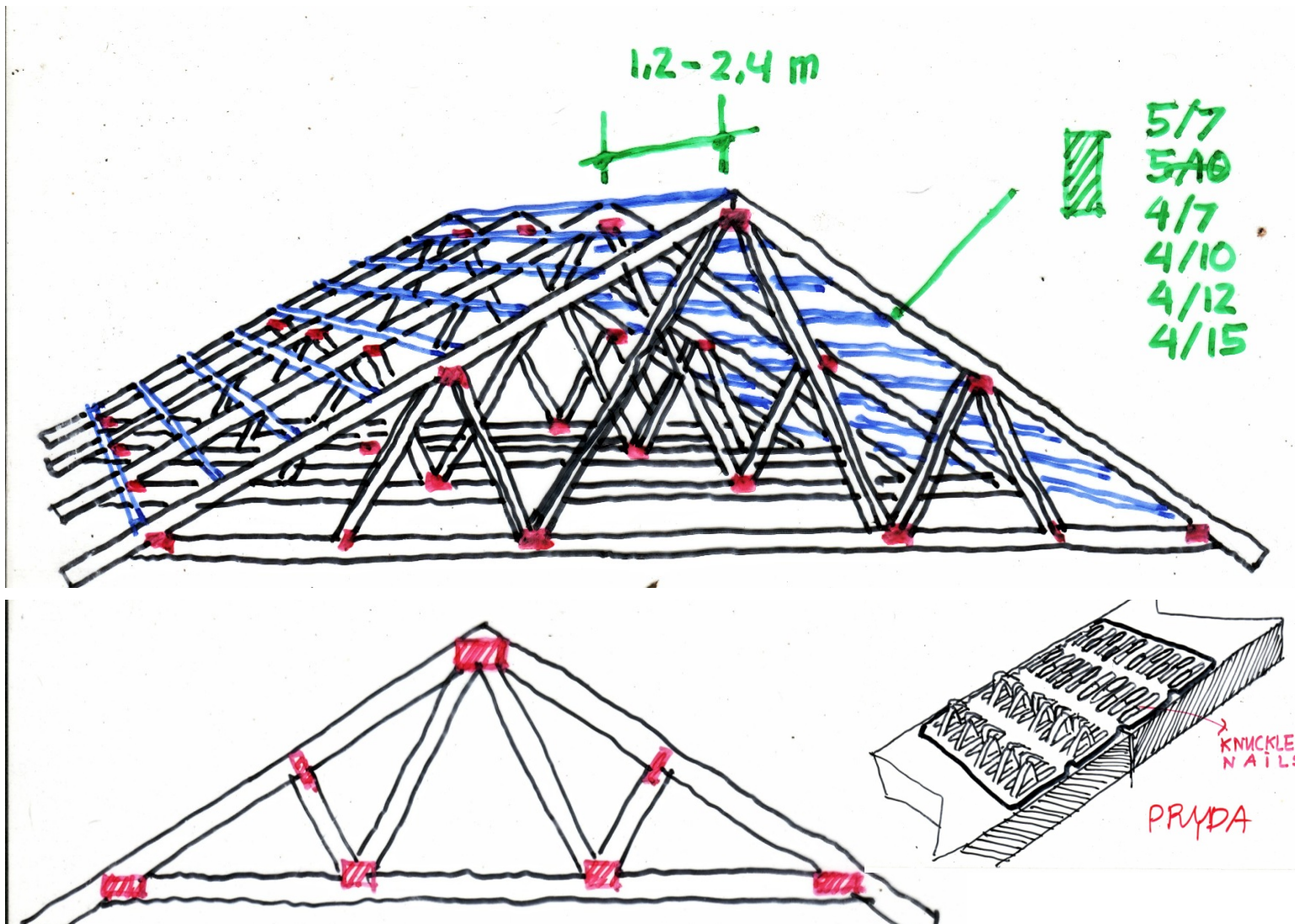
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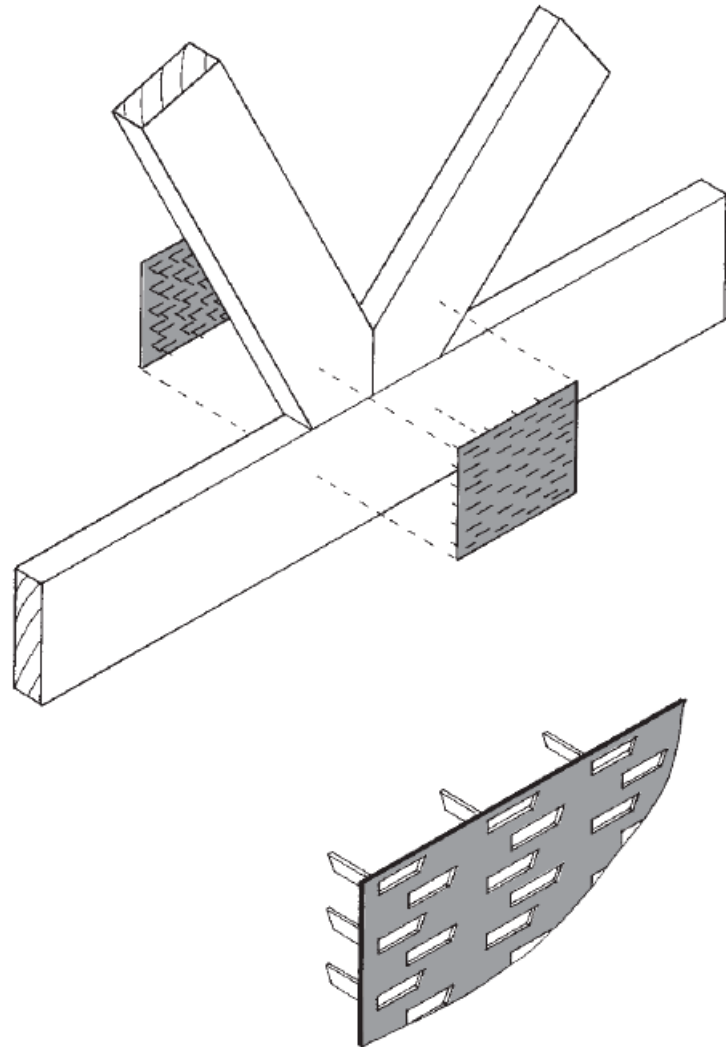
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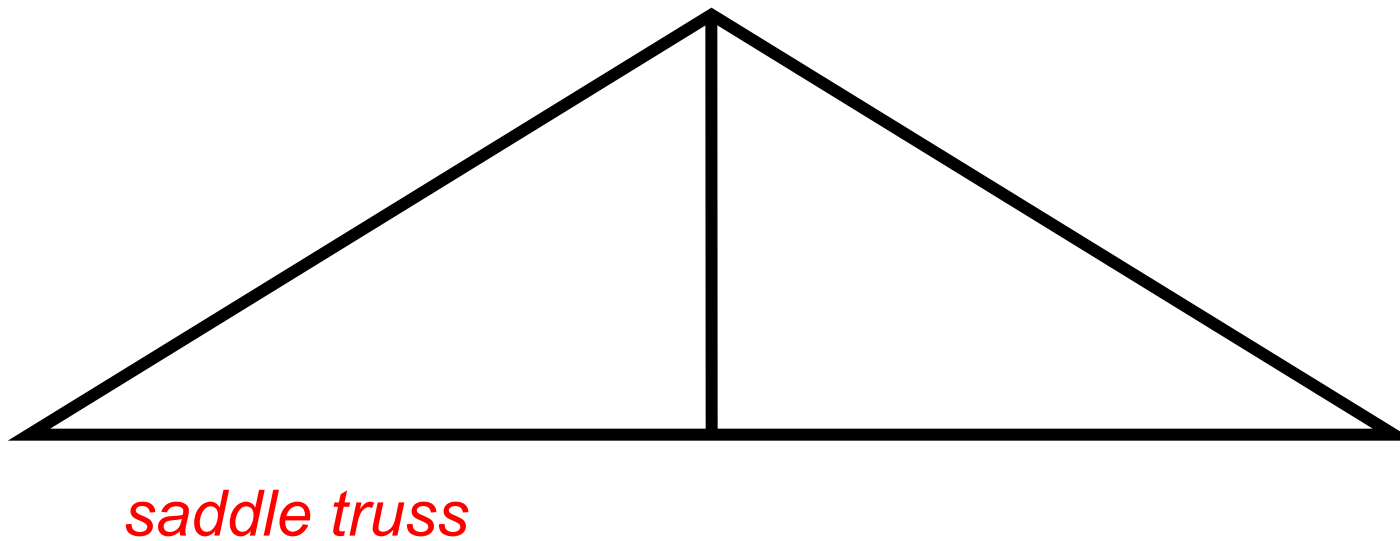
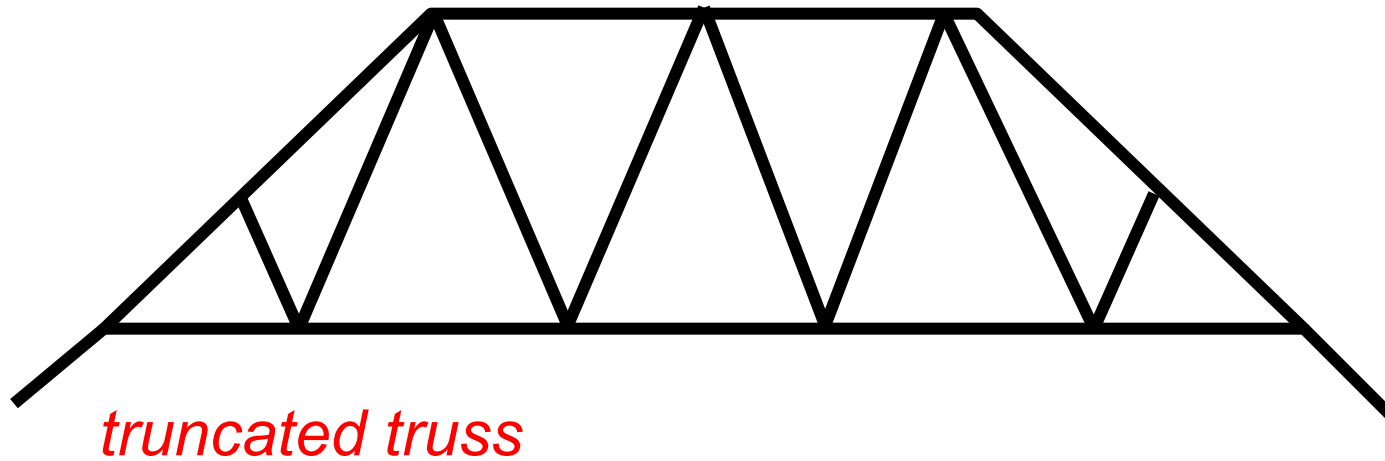
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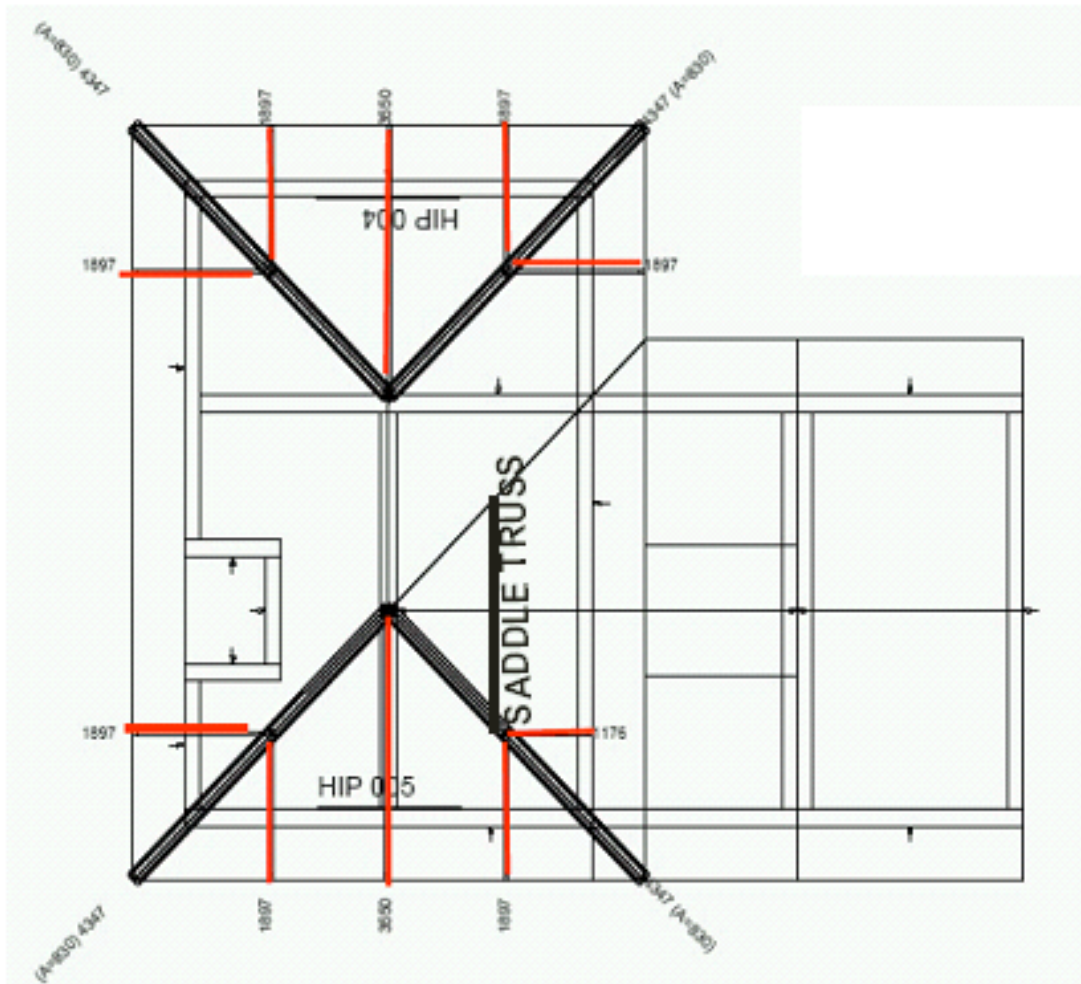
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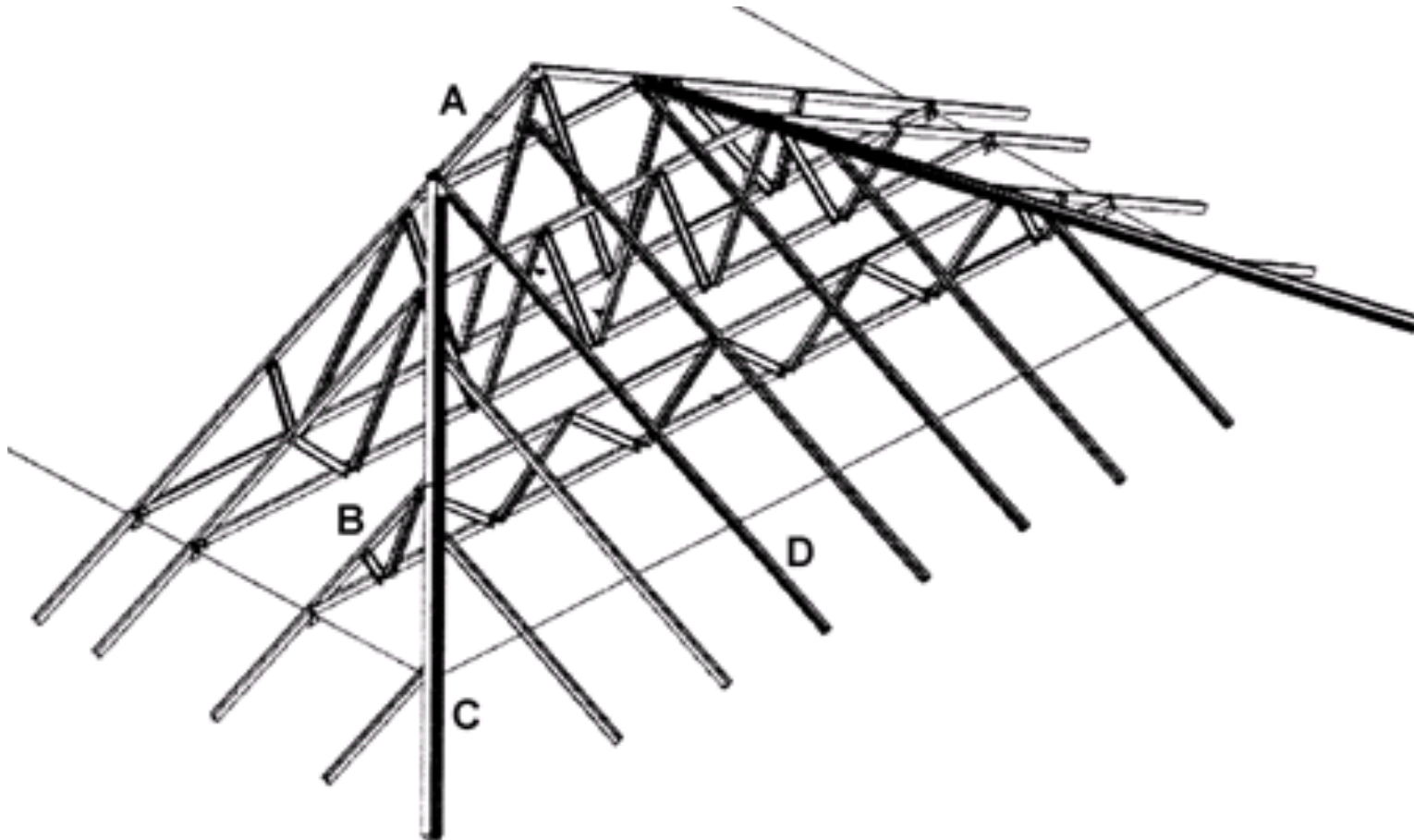
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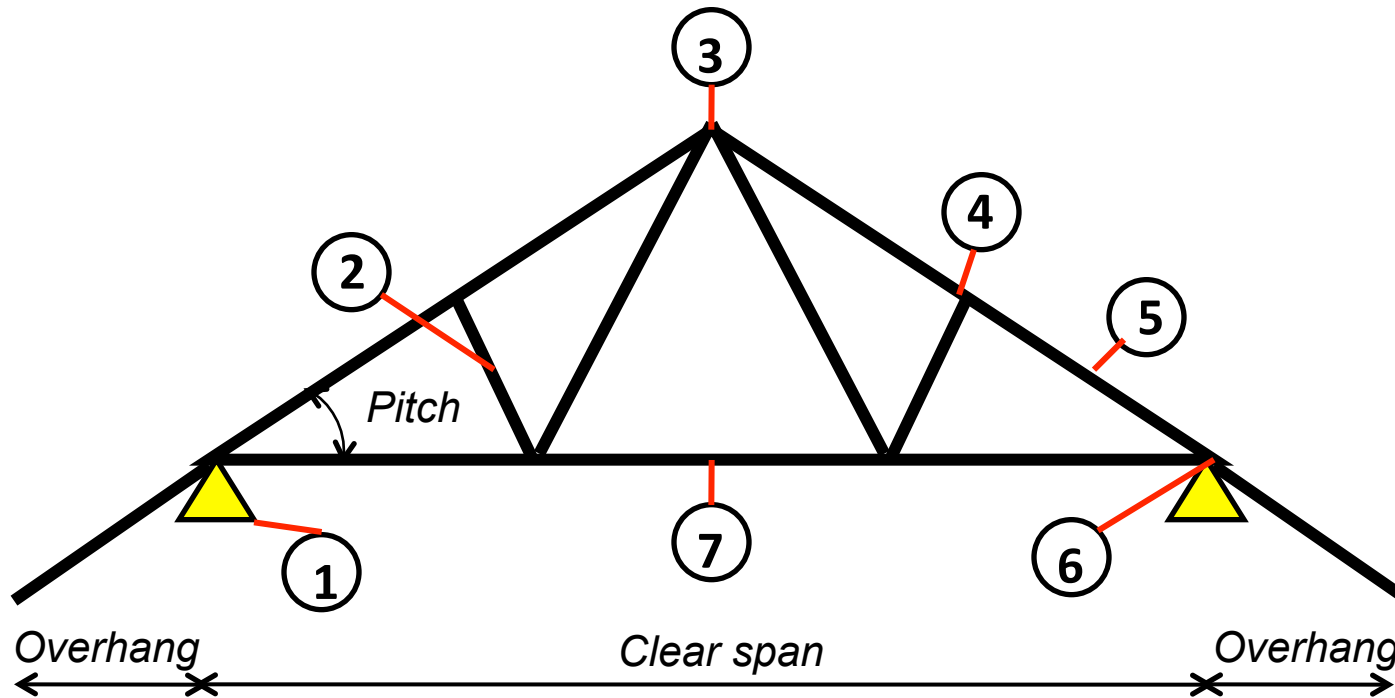
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Apex

: Titik simpul yang berada di puncak kuda-kuda (*truss*).

Heel joint

: Titik simpul yang merupakan pertemuan antara batang utama atas dan bawah.

Panel point

: Titik simpul yang merupakan pertemuan beberapa elemen batang pada suatu struktur kuda-kuda.

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