**Linear Programming Model:**

Maximize $Z = 3x1 + 5x2$

s.t.

$$\begin{aligned} x1 &\leq 4 \\ 2x2 &\leq 12 \\ 3x1 + 2x2 &\leq 18 \end{aligned}$$

and

$x1 \geq 0 \quad x2 \geq 0$

---

**SAS LP MODEL**

```
*******************************************
*   HILLIER & LIEBERMAN, CHAP. 3          *
*   PROTOTYPE EXAMPLE 3.1                 *
*******************************************;

DATA NEW;
INPUT _TYPE_ $  _ROW_ $ _COL_ $ _COEF_;
CARDS;
MAX       PROFIT       .                      .
.         PROFIT       PRODUCT1              3.0
.         PROFIT       PRODUCT2              5.0
LE        PLANT1       PRODUCT1              1.0
.         PLANT1       _RHS_                 4.0
LE        PLANT2       PRODUCT2              2.0
.         PLANT2       _RHS_                12.0
LE        PLANT3       PRODUCT1              3.0
.         PLANT3       PRODUCT2              2.0
.         PLANT3       _RHS_                18.0
;
PROC LP SPARSEDATA ;
     TITLE1 'WYNDOR GLASS CO. PROBLEM';
     TITLE2 'SPARSE DATA FORMAT - 1';
RUN;
```