

## SHEAR FORCE

$$SF @ A = 0$$

$$SF @ JTR A = -750$$

$$SF @ B = -750$$

$$SF @ C = -750$$

$$SF @ JTR C = -750 + 2179 = 1429$$

$$SF @ D = -750 + 2179 = 1429$$

$$SF @ H = -750 + 2179 - 2000 = 571$$

$$SF @ JTR H = -750 + 2179 - 2000 - 1000 = -1571$$

$$SF @ JTR J = -750 + 2179 - 2000 - 1000 + 3071 = 1500$$

$$SF @ JTR K = -750 + 2179 - 2000 - 1000 + 3071 - 1500 = 0$$

## BENDING MOMENTS

$$BM @ A = 0$$

$$BM @ B = -750 \times 1 = -750$$

$$BM @ C = -750 \times 2 = -1500$$

$$BM @ D = -750 \times 3 + 2179 \times 1 = -71$$

$$BM @ E = -750 \times 4 + 2179 \times 2 - 500 \times 1 \times \frac{1}{2} = 1108$$

$$BM @ F = -750 \times 5 + 2179 \times 3 - 500 \times 2 \times 1 = 1787$$

$$BM @ G = -750 \times 6 + 2179 \times 4 - 500 \times 3 \times 1.5 = 1966$$

$$BM @ H = -750 \times 7 + 2179 \times 5 - 500 \times 4 \times 2 = 1645$$

$$BM @ I = -750 \times 8 + 2179 \times 6 - 500 \times 4 \times 3 - 1000 \times 1 = 74$$

$$BM @ J = -750 \times 9 + 2179 \times 7 - 500 \times 4 \times 4 - 1000 \times 2 = -1497$$

$$BM @ K = -750 \times 10 + 2179 \times 8 - 500 \times 4 \times 5 - 1000 \times 3 + 3071 \times 1 = 3$$

ANSWERS  
WORKING  
LEFT TO RIGHT

$$= -3$$

$$= -753$$

$$= -1503$$

$$= -74$$

$$= 1105$$

$$= 1784$$

$$= 1963$$

$$= 1642$$

ANSWERS  
WORKING  
FROM RIGHT  
TO LEFT



$$= 71$$

$$= -1500$$

$$= 3$$