|  |
| --- |
| **مهندس بوانی تمرین های استاتیک 8Hw#**  |
| 1. For what value *M* of the clockwise couple will the horizontal component Ax of the pin reaction at *A be* zero? If a couple of that same magnitude *M* were applied in a counterclockwise direction, what would be the value of Ax?

  | 1. Determine the components of all forces acting on each member of the loaded frame.

  |
| 1. Calculate the magnitude of the force acting on the pin at *D.* Pin *C is*  fixed in *DE* and bears against the smooth slot in the triangular plate.

 | 1. Determine the magnitude of the pin reaction at *A and* the magnitude and direction of the force reaction at the rollers. The pulleys at *C* and *D* are small.
 |
| 1. For the frame and loading shown, determine the components of the forces acting on member *CDE* at *C* and *D*.

  | 1. The press shown is used to emboss a small seal at *E*. Knowing that *P* = 250 N, determine (*a*) the vertical component of the force exerted on the seal, (*b*) the reaction at
 |
| 1. Determine the magnitude of the gripping forces produced when two 300-N forces are applied as shown.

 | 8. The axis of the three-hinge arch ABC is a parabola with vertex at B. Knowing that *P* = 112 kN and *Q* = 140 kN, determine (*a*) the components of the reaction at *A*, (*b*) the components of the force exerted at *B* on segment *AB*. |