

To be submitted by 8:00 a.m. EDT May 24, 2022 – Submit through online form



Night School 28 – Vertical Bracing Connections  
Quiz 4

1. The actual hole size used in net section calculations is the standard hole size plus 1/16 inch.
  - a. True
  - b. False
  - c. Depends on the diameter of the bolt
  - d. Depends on the type of bolt
2. True or False: The actual hole size used in prying action and tear-out calculations is the standard hole size plus 1/16 inch.
  - a. True
  - b. False
3. True or False: The session 4 example has  $\Delta V_b=0$ . Therefore, if  $\alpha$  does not equal  $\bar{\alpha}$ , the moment on the gusset to beam connection is  $M_b = V_b (\alpha - \bar{\alpha})$ .
  - a. True
  - b. False
4. True or False: In the geometrical quantity  $r = \sqrt{[(\alpha + e_c)^2 + (\beta + e_b)^2]}$ , the  $\alpha$  and  $\beta$  could be  $\bar{\alpha}$  and  $\bar{\beta}$ .
  - a. True
  - b. False
5. True or False: In checking a connection for bolt shear, the available bolt shear strength may be reduced because of bearing or tear-out.
  - a. True
  - b. False



Vertical Bracing Connections  
Session 4: Vertical Bracing Connection Corner Example – Wind and Low-seismic  
April 26, 2022

To be submitted by 8:00 a.m. EDT May 24, 2022 – Submit through online form

6. True or False: The available strength in an LRFD limit state is always 1.5 times the available strength in the same ASD limit state.
  - a. True
  - b. False
7. True or False: The *Manual* formula  $t_{min} = 6.19D/F_u$  should only be used when there is no direct way to calculate plate stresses under fillet welds.
  - a. True
  - b. False
8. True or False: In prying calculations,  $t_c$  is the thickness of the angle legs or the column flange required to resist the required tensile strength of the bolt.
  - a. True
  - b. False
9. True or False: The prying force  $q_r$  always needs to be calculated to ensure an adequate connection is achieved.
  - a. True
  - b. False
10. True or False: Block shear applies only to bolted connections.
  - a. True
  - b. False

