

Sample questions for the MAAE 2001 Final Exam. For some questions there may be more than one right answer. Select the best and most complete answer.

1. Reference dimensions are included in drawings to:
 - (a) reference a particular feature to a drawing note.
 - (b) reference a particular dimension to an auxiliary view.
 - (c) eliminate arithmetic calculations.
 - (d) Both (a) and (b) above.
 - (e) None of the above.

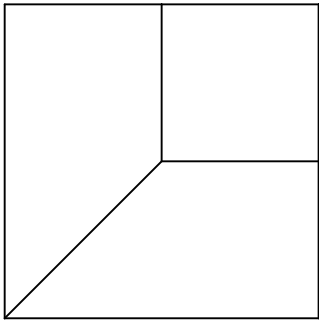
2. The limits of tolerance of a certain hole in limit form are 1.5000-1.5040, while that of the mating shaft are 1.4925-1.4950. What is the allowance for this pair of cylindrical elements?
 - (a) +0.0050.
 - (b) -0.0050.
 - (c) +0.0115.
 - (d) 1.5000.
 - (e) None of the above.

3. Consider a thread specified by M20×1.5–6H/5g6g. What is the pitch of this thread?
 - (a) 20 mm.
 - (b) 1.5 mm.
 - (c) 6 mm.
 - (d) 6/30 mm.
 - (e) 1.5-(6/30) mm.

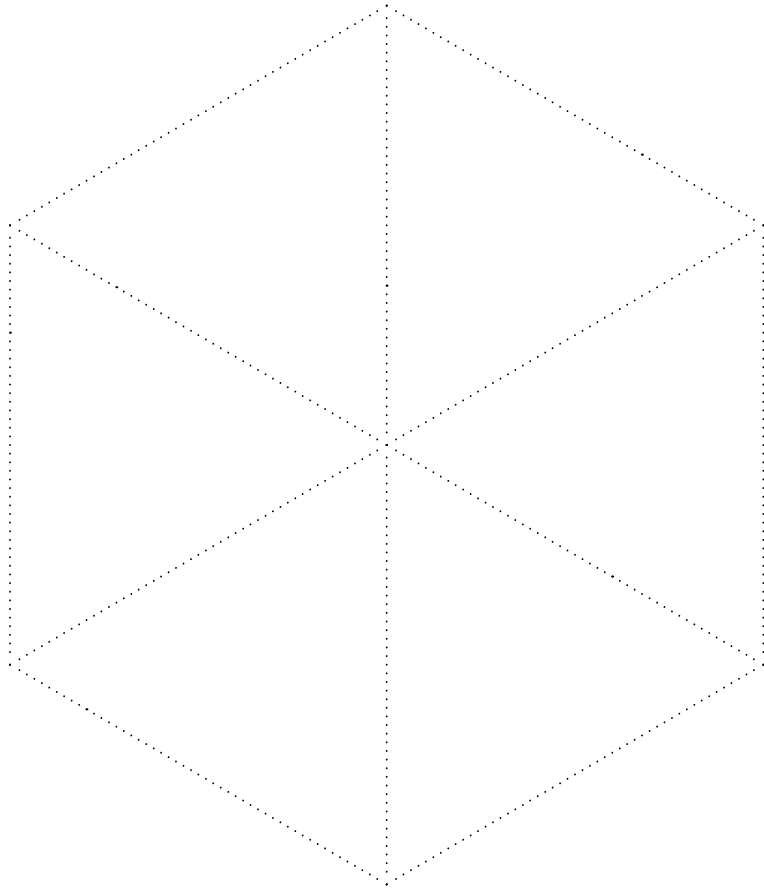
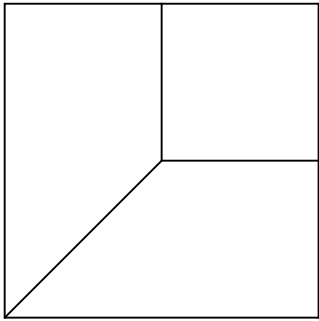
4. A spur gear has a radius of 10 inches and 30 teeth, while a mating spur gear has 15 teeth.
What is the radius of mating spur gear?
 - (a) 20 inches
 - (b) 5 inches
 - (c) 15 inches
 - (d) 30 inches
 - (e) None of the above.

5. Spotfacing is used for:
 - (a) locating a design feature.
 - (b) establishing a datum for dimensioning purposes.
 - (c) providing a bearing surface for seating washers and bolt heads.
 - (d) all of the above.
 - (e) none of the above.

1. A cube is machined according to the two orthographic views shown.
Using the isometric grid, draw all visible lines on the machined cube.



H
F



Front

NAME: _____

STUDENT NUMBER: _____