Define what is meant by the phrase design for manufacturability (or DFM):

Consciously trying to design parts that can be manufactured for the lowest __________ while meeting the required __________ intent and __________ factors.

Circle the answer that achieves the DFM goal of reducing part cost:

1. use larger / smaller part tolerances
2. use coarser / finer surface finishes
3. use fewer / more finished surfaces
4. use fewer / more dimension datums
5. use arbitrary / nominal part / feature dimensions
6. use stronger / weaker material
7. use tapped / thru-bolted clearance holes
8. use screw / bolt holes
9. use blind / thru holes
10. specify cone-bottomed / flat-bottomed holes
11. make the part larger / smaller
12. design parts for min / max raw-stock removal
13. design parts to use larger / smaller cutting tools
14. design parts to use cutting tools with larger / smaller L:D ratios
15. design parts around custom / standard cutting tool sizes
16. design parts with / without chamfers and fillets
17. avoid / use mirror image (versus identical) parts
18. use clearance / line fits for fasteners holes
19. always / never design parts that can be purchased off the shelf
20. specify slots or pockets with round / square corners when using traditional mfg. equipment
21. consider / ignore room for assembly tools
22. always place fastener threads in shear / tension
23. use fasteners / pins for locating parts with respect to each other
24. specify (8) ¼-20 UNC threads in aluminum / (8) ¾-28 UNF threads in steel / either
25. specify (8) ¼-28 UNF threads in steel / (8) ¼-28 UNF threads in titanium / either
26. specify (8) ¼-20 UNC threads in aluminum / (8) 4-40 UNC threads in aluminum / either
27. specify (8) ¼-28 UNF threads in steel / (4) 2-64 UNF threads in steel / either
28. specify (8) ¼-20 threads in aluminum / (8) M6x1.0 threads in aluminum / either
29. specify (8) ¼-20 UNC threads in aluminum / (8) 1/2-13 UNC threads in aluminum / either