zCentral Launch Code: **AP39**

Name_____ Date_____

Mechanical Bearings
Worksheet

1. Launch “Advanced Manufacturing Mechanical.”

2. Select “Support Parts.”

3. Select “Sliding Bearing.”

4. Select “Radial Plan.”

5. Expand the menu to reveal and select "Integral."

6. The integral plain bearing consists of what two main parts?

7. List two advantages of the integral plain bearing.

8. List two disadvantages of the integral plain bearing.

9. Select “Application” in the lower-left, with the two meshed gears.

10. Select “Exploded View” in the lower-right. Remove all of the bearings from the model for further exploration. Identify all parts of the assembly.

11. How many bearings can you count?

12. What is the purpose of these bearings in this model?

13. Select the Return arrow in the lower-left. 

14. Select “Split.”

15. What are the main parts of the split bearing?

16. What advantages does the stepped shape of the bearing surface provide?

17. What advantage does a split bearing assembly provide over the previous integral bearing assembly design?

18. Select “Exploded View” and “Move” to further explore the model.

19. Select the Return arrow in the lower-left.

20. Select “Self-aligning” from the left pane.

21. What advantages does the spherical fit of the bearing mount and bearing bush provide?

22. What is the self-aligning slide bearing designed to support?

23. Select “Exploded View” and “Move” to further explore the model.

24. Select the Return arrow in the lower-left.

25. Select “Thrust Bearing” from the left pane.

26. What are the main components of the thrust plain bearing?

27. What two types of loads can thrust plain bearings support?

28. Select “Exploded View” and “Move” to further explore the model.

29. Select the Return arrow in the lower-left.

30. Select “Rolling Bearing” from the left pane.

31. Expand the menu to reveal and select “Self-aligning.”

32. What is the Type Code for a self-aligning rolling bearing?

33. What is it especially suited to do?

34. What are the four parts that you can see from the exploded view?

35. Select “Application” from the bottom of the screen.

36. Select “Double Row.”

37. Select “Exploded View” from the bottom of the screen, on the right side.

38. What advantage does this double row offer over other types of bearings?

39. Select the Return arrow in the lower-left.

40. Continue through all of the rolling bearings from the left pane.

41. Select “Thrust Balls.”

42. What types of applications are thrust rolling ball bearings commonly used for?

43. What do you notice about the cage in this model as compared to the others?

44. Select “Deep Groove.”

45. What is the Type Code for a deep groove rolling bearing?

46. What advantages of this bearing make it the most widely used and extensively applied bearing?

47. Select “Angular.”

48. Select “Application.”

49. What type of gear do you see in this application with the deep groove bearings supporting the two shafts?

50. Select “Thrust Cylindrical.”

51. Select “Exploded View.”

52. What do you notice about the bearings used in this assembly?

53. What is the advantage of this design?

54. Select “Cylindrical Roller.”

55. Select “Application.”

56. What is the advantage of the cylindrical design?

57. What is the Type Code for a cylindrical rolling bearing?

58. Select “Spherical.”

59. Select “Application.”

60. What are the main advantages of the cylindrical design?

61. Select “Tapered.”

62. Select “Exploded View.”

63. How are the separable inner and outer rings usually used?