**Chapter 14: Lean Operations and Supply Chains**

**Practice Problems**

**MULTIPLE CHOICE**

1. Iron Man Foundry produces multiple products, one of which is casting a hose nozzle. The daily demand for these nozzles is 1,000 units per day. If Iron Man currently operates one shift of eight hours what would be the Takt time?

|  |  |
| --- | --- |
| a. | 4.80 minutes |
| b. | 3.00 minutes |
| c. | 0.48 minutes |
| d. | 0.24 minutes |

ANS: C PTS: 1 DIF: Easy

2. Elliot Medical Supplies produces hypodermic needles. Fall is the quarter with the greatest demand, so Elliot is operating with 3–eight hour shifts. If the daily production quote is 24,000 needles what would be the Takt time?

|  |  |
| --- | --- |
| a. | 4.8 seconds |
| b. | 3.6 seconds |
| c. | 2.4 seconds |
| d. | 1.2 seconds |

ANS: B PTS: 1 DIF: Medium

3. Elliot Medical Supplies produces hypodermic needles. Spring is the quarter with the least demand, so Elliot is operating with 2–eight hour shifts. If the daily production quote is 18,000 needles what would be the Takt time?

|  |  |
| --- | --- |
| a. | .065 minutes |
| b. | .060 minutes |
| c. | .055 minutes |
| d. | .053 minutes |

ANS: D PTS: 1 DIF: Medium

4. Consolidated Industry uses 3D printing processes to produce specialized brackets. The 3D printer can only be operated for a six hour shift before requiring maintenance and reloading of raw materials. If the demand for a one-shift day is 500 brackets, what would be the required Takt time?

|  |  |
| --- | --- |
| a. | 1.00 minute |
| b. | 0.64 minutes |
| c. | 0.54 minutes |
| d. | 0.72 minutes |

ANS: D PTS: 1 DIF: Medium

5. Consolidated Industry uses 3D printing processes to produce specialized brackets. The 3D printer can only be operated for a six hour shift before requiring maintenance and reloading of raw materials. They have received a rush order where the demand is for 750 brackets per day. Consolidated has determined that they can run 2–six hour shifts on their 3D printer. What would be the Takt time for this order?

|  |  |
| --- | --- |
| a. | 0.64 minutes |
| b. | 0.56 minutes |
| c. | 0.48 minutes |
| d. | 0.32 minutes |

ANS: C PTS: 1 DIF: Easy

6. Xebec Chemicals produces specialty chemical products. One of their products is highly toxic and can only be made in one-hour batches. After producing this chemical, the equipment has to be flushed out for a half-hour. If the daily demand was for 30 units what would be the required Takt time if they use one– one hour batch every day?

|  |  |
| --- | --- |
| a. | 0.5 minutes |
| b. | 1.0 minutes |
| c. | 1.5 minutes |
| d. | 2.0 minutes |

ANS: D PTS: 1 DIF: Easy

7. Xebec Chemicals produces specialty chemical products. One of their products is highly toxic and can only be made in one-hour batches. After producing this chemical, the equipment has to be flushed out for a half-hour. The company received an order that will require them to produce 90 units a day. They have decided that they will use 4–one hour shifts every day. What would be the new Takt time in seconds?

|  |  |
| --- | --- |
| a. | 120 seconds |
| b. | 150 seconds |
| c. | 160 seconds |
| d. | 175 seconds |

ANS: C PTS: 1 DIF: Medium

8. Xebec Chemicals produces specialty chemical products. One of their products is highly toxic and can only be made in one-hour batches. After producing this chemical, the equipment has to be flushed out for a half-hour. The company received an order that will require them to produce 250 units a day. After careful analysis, they have decided that they will operate 8–one hour shifts. What would be the new Takt time?

|  |  |
| --- | --- |
| a. | 0.64 minutes |
| b. | 1.16 minutes |
| c. | 1.92 minutes |
| d. | 2.12 minutes |

ANS: C PTS: 1 DIF: Easy

9. Nature’s Best Bakery produces cakes for a large supermarket chain. The last stage of their process is icing the cake. If Nature’s Best Bakery runs 3–eight hour shifts, what would be the Takt time for icing 600 cakes?

|  |  |
| --- | --- |
| a. | 2.00 minutes |
| b. | 2.40 minutes |
| c. | 2.80 minutes |
| d. | 3.20 minutes |

ANS: B PTS: 1 DIF: Easy

10. Nature’s Best Bakery produces cakes for a large supermarket chain. The last stage of their process is icing the cake. Because of a need to run maintenance operations, Nature’s Best Bakery has decided to run 2–eight hour shifts. What would be the Takt time for icing 600 cakes in seconds?

|  |  |
| --- | --- |
| a. | 112 seconds |
| b. | 108 seconds |
| c. | 96 seconds |
| d. | 48 seconds |

ANS: C PTS: 1 DIF: Hard

11. Decorative Molding makes plastic ceiling tiles. They use a mix production process for the six different types of tiles that they make. They run their injection molding machine for four hours and then they shift to a new type of tile (the setup time is negligible). Decorative molding runs this production process 24 hours a day. This enables them to produce all six types of tiles in one day. If the cumulative daily demand for all six types of tiles is 1500 tiles, what would be the Takt time in seconds (with rounding)?

|  |  |
| --- | --- |
| a. | 40 seconds |
| b. | 55 seconds |
| c. | 58 seconds |
| d. | 60 seconds |

ANS: C PTS: 1 DIF: Hard

12. Jolly Ice Cream Company is looking into a new flavor and process. They anticipate that the daily demand for this ice cream will be 1,800 pints. If they run 1–eight hour shift, what would be the required Takt time?

|  |  |
| --- | --- |
| a. | .18 minutes |
| b. | .27 minutes |
| c. | .36 minutes |
| d. | .45 minutes |

ANS: B PTS: 1 DIF: Easy

13. Jolly Ice Cream Company is looking into a new flavor and process. They anticipate that the daily demand for this ice cream will be 1,800 pints. If they run 2–eight hour shifts, what would be the required Takt time?

|  |  |
| --- | --- |
| a. | .53 minutes |
| b. | .59 minutes |
| c. | .67 minutes |
| d. | .75 minutes |

ANS: A PTS: 1 DIF: Easy

14. Jolly Ice Cream Company is looking into a new flavor and process. They anticipate that the daily demand for this ice cream will be 1,800 pints. If they run 3–eight hour shifts, what would be the required Takt time in seconds?

|  |  |
| --- | --- |
| a. | 27 seconds |
| b. | 33 seconds |
| c. | 42 seconds |
| d. | 48 seconds |

ANS: D PTS: 1 DIF: Medium

15. The Prospect Middle School’s PTA is planning a major fund raiser. The Chairwoman plans on sending out letters and raffle tickets to all 1,800 parents. She has set aside six hours for the members of the PTA to stuff envelopes. What would be the Takt time in seconds?

|  |  |
| --- | --- |
| a. | 3 seconds |
| b. | 4 seconds |
| c. | 6 seconds |
| d. | 12 seconds |

ANS: D PTS: 1 DIF: Medium

16. Mako Jewelry produces several lines of costume jewelry. Their bracelet line has a Takt time of six minutes per bracelet. If Mako has 3–eight hour shifts, what demand could they meet?

|  |  |
| --- | --- |
| a. | 200 |
| b. | 240 |
| c. | 300 |
| d. | 400 |

ANS: B PTS: 1 DIF: Medium

17. Mako Jewelry produces several lines of costume jewelry. Their bracelet line has a Takt time of four minutes per bracelet. If Mako has 3–eight hour shifts, what demand could they meet?

|  |  |
| --- | --- |
| a. | 300 |
| b. | 340 |
| c. | 360 |
| d. | 420 |

ANS: C PTS: 1 DIF: Medium

18. Eddy Jones Pottery produces serving bowls among other items. With automated equipment, a serving bowl can be formed in 2.5 minutes. If Eddy Jones Pottery has a one-hour shift, how many bowls could they produce?

|  |  |
| --- | --- |
| a. | 143 bowls |
| b. | 162 bowls |
| c. | 188 bowls |
| d. | 192 bowls |

ANS: D PTS: 1 DIF: Medium

19. Eddy Jones Pottery produces serving bowls among other items. With automated equipment, a serving bowl can be formed in 2.5 minutes. If Eddy Jones Pottery adds a second shift of one hour, how many bowls could they produce?

|  |  |
| --- | --- |
| a. | 246 bowls |
| b. | 324 bowls |
| c. | 376 bowls |
| d. | 384 bowls |

ANS: D PTS: 1 DIF: Medium

20. Eddy Jones Pottery produces serving bowls among other items. If they reengineer their automated equipment, a serving bowl can be formed in just 1.5 minutes instead of 2.5 minutes. If Eddy Jones Pottery uses the reengineered equipment, how many more bowls could they produce in 1–eight hour shift?

|  |  |
| --- | --- |
| a. | 84 bowls |
| b. | 128 bowls |
| c. | 156 bowls |
| d. | 320 bowls |

ANS: B PTS: 1 DIF: Hard

21. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are targeting a safety stock of 20%, with a leadtime estimated at five days, while the daily demand is for 40 blades. How many Kanban cards (with appropriate rounding) would be required for this design?

|  |  |
| --- | --- |
| a. | 36 |
| b. | 48 |
| c. | 60 |
| d. | 72 |

ANS: B PTS: 1 DIF: Easy

22. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are targeting a safety stock of 20%. Working with suppliers, the leadtime that was estimated to be five days could be reduced to four days, while the daily demand is for 40 blades. How many Kanban cards (with appropriate rounding) would be required for the reduced leadtime design?

|  |  |
| --- | --- |
| a. | 30 |
| b. | 36 |
| c. | 39 |
| d. | 40 |

ANS: C PTS: 1 DIF: Easy

23. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are targeting a safety stock of 20%. Leadtime that was estimated to be five days could be reduced to two days, while the daily demand is for 40 blades. How many Kanban cards (with rounding down) would be required for this design?

|  |  |
| --- | --- |
| a. | 12 |
| b. | 15 |
| c. | 19 |
| d. | 23 |

ANS: C PTS: 1 DIF: Easy

24. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are targeting a safety stock of 20%. Leadtime that was estimated to be five days could be reduced to one day, while the daily demand is for 40 blades. How many Kanban cards (with rounding) would be required for this design?

|  |  |
| --- | --- |
| a. | 10 |
| b. | 11 |
| c. | 12 |
| d. | 14 |

ANS: A PTS: 1 DIF: Easy

25. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are re-targeting a safety stock of 10%. Leadtime is estimated to be five days, while the daily demand is for 40 blades. How many Kanban cards (with rounding) would be required for this design?

|  |  |
| --- | --- |
| a. | 34 |
| b. | 44 |
| c. | 48 |
| d. | 52 |

ANS: B PTS: 1 DIF: Easy

26. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are re-targeting a safety stock of 10%. Leadtime that was estimated to be five days could be reduced to three days, while the daily demand is for 40 blades. How many Kanban cards (with rounding down to nearest integer) would be required for this design?

|  |  |
| --- | --- |
| a. | 26 |
| b. | 27 |
| c. | 28 |
| d. | 29 |

ANS: B PTS: 1 DIF: Medium

27. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Given demand fluctuations, they are targeting a safety stock of 10%. Leadtime that was estimated to be five days could be reduced to one day, while the daily demand is for 40 blades. How many Kanban cards (with rounding) would be required for this design?

|  |  |
| --- | --- |
| a. | 7 |
| b. | 8 |
| c. | 9 |
| d. | 10 |

ANS: C PTS: 1 DIF: Medium

28. Harcourt Manufacturing produces parts for jet engines. It has a lean initiative and is examining several redesigns of one of their operations. Their initial design called for having containers that hold five engine blades. Even given that there are demand fluctuations, they are targeting a total lean approach to safety stock. Leadtime that was estimated to be fibe days could be reduced to three days, while the daily demand is for 40 blades. How many Kanban cards (with rounding) would be required for this design?

|  |  |
| --- | --- |
| a. | 16 |
| b. | 20 |
| c. | 24 |
| d. | 30 |

ANS: C PTS: 1 DIF: Medium

29. Clariton Bottler manufactures bottles for soda and beer companies. On the soda line they have demand of 500 bottles per hour. The lead time is only one-half (0.5) hours. Their containers hold 25 bottles. Given fluctuations in demand they want a safety stock of 20%. How many Kanban cards (with rounding) would be required for this line?

|  |  |
| --- | --- |
| a. | 9 |
| b. | 10 |
| c. | 11 |
| d. | 12 |

ANS: D PTS: 1 DIF: Easy

30. Clariton Bottler manufactures bottles for soda and beer companies. On the beer line, they have demand of 500 bottles per hour. The lead time is two hours. Their containers hold 25 bottles. Given fluctuations in demand, they want a safety stock of 20%. How many Kanban cards (with rounding) would be required for this line?

|  |  |
| --- | --- |
| a. | 40 |
| b. | 44 |
| c. | 48 |
| d. | 55 |

ANS: C PTS: 1 DIF: Easy

31. Clariton Bottler manufactures bottles for soda and beer companies. On the beer line, they have demand of 500 bottles per hour. The lead time is only two hours, but they are thinking of reducing it to one hour. Their containers hold 25 bottles. Given fluctuations in demand, they want a safety stock of 20%. How would the number of Kanban cards (with rounding) change if they reduced the leadtime to one hour?

|  |  |
| --- | --- |
| a. | +24 |
| b. | +12 |
| c. | -12 |
| d. | -24 |

ANS: D PTS: 1 DIF: Medium

32. Peter’s Pool Supplies manufactures a variety of pool equipment. One of their products is pool skimmers. The demand for the skimmers is 250 units per hour. Although demand fluctuates during certain times of the year it is relatively stable, so for the next few months they will use a safety stock level of just 10%. They have a leadtime of four hours and use four Kanban. What approximately is the volume of the containers?

|  |  |
| --- | --- |
| a. | 250 |
| b. | 275 |
| c. | 300 |
| d. | 350 |

ANS: B PTS: 1 DIF: Medium

33. Peter’s Pool Supplies manufactures a variety of pool equipment. One of their products is pool skimmers. The container that they use hold 275 skimmers. Although demand fluctuates during certain times of the year it is relatively stable, so for the next few months they will use a safety stock level of just 10%. They have a leadtime of four hours. The demand is 400 skimmers per hour. How many Kanban cards (with rounding) would be required for this line?

|  |  |
| --- | --- |
| a. | 5 |
| b. | 7 |
| c. | 8 |
| d. | 9 |

ANS: B PTS: 1 DIF: Medium

34. Armstrong Security produces a variety of commercial burglar alarms. Their least expensive model has a demand of 400 units per day, the current leadtime for this model is two days. They use containers that hold 20 alarms and use 44 Kanbans. What is their current safety stock policy (in percentage)?

|  |  |
| --- | --- |
| a. | 5.0% |
| b. | 7.5% |
| c. | 10.0% |
| d. | 12.5% |

ANS: C PTS: 1 DIF: Hard

35. Armstrong Security produces a variety of commercial burglar alarms. Their least expensive model has a demand of 400 units per day, the current leadtime for this model is two days. Their current safety stock policy is 20%. If they use 16 Kanbans, how many units does each container hold?

|  |  |
| --- | --- |
| a. | 48 |
| b. | 60 |
| c. | 72 |
| d. | 80 |

ANS: B PTS: 1 DIF: Medium

36. Total Vision manufactures eyeglass frames. The demand for their most popular line is 1,200 frames per day. Total Vision uses a safety stock level of 15% and a lead time of one day. They use 69 Kanbans a day. What are the size of their containers?

|  |  |
| --- | --- |
| a. | 10 |
| b. | 14 |
| c. | 18 |
| d. | 20 |

ANS: D PTS: 1 DIF: Medium

37. Decorative Molding manufactures plastics tile and plaster moldings. They are attempting to apply lean principles to their plaster molding operations. The demand for their most popular plaster mold runs 500 units per day with a leadtime of two days. Currently, Decorative Molding likes to have a safety stock of 15%. If they use containers that hold 50 moldings, how many Kanbans would this system require?

|  |  |
| --- | --- |
| a. | 20 |
| b. | 21 |
| c. | 22 |
| d. | 23 |

ANS: D PTS: 1 DIF: Easy

38. Decorative Molding is attempting to apply lean principles to their plaster molding operations. The demand for their most popular plaster mold runs 500 units per day with a leadtime of two days. Currently, Decorative Molding likes to have a safety stock of 15%, but they want to reduce that to zero. If they use containers that hold 50 moldings, how many Kanbans would this system require?

|  |  |
| --- | --- |
| a. | 20 |
| b. | 21 |
| c. | 22 |
| d. | 23 |

ANS: A PTS: 1 DIF: Medium

39. Blakeman Publisher prints coupon books for local businesses among other items. On average they have to meet a demand of 1,000 coupon books per day. Their leadtime is four days. They desire a safety stock of 20%. If they have determined that they need 10 Kanbans for this line, what size are the containers?

|  |  |
| --- | --- |
| a. | 100 |
| b. | 400 |
| c. | 480 |
| d. | 500 |

ANS: C PTS: 1 DIF: Medium

Harcourt Manufacturing produces parts for jet engines. One of their most important products are fan blades for a variety of jet engines. Their major line produces fan blades for four engines—the TF-60, the TF-80, the TF-120 and the TF-240. Because of exacting maintenance, the production occurs only during 25 days a month. The monthly demands for the blades of each jet engine are given below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | TF-60 | TF-80 | TF-120 | TF-240 |
| Monthly Demand | 2,400 | 1,800 | 1,200 | 900 |

40. Assuming that Harcourt is using 2–eight hour shifts, what would be the cycle times (in seconds) for the TF-60, the TF-80, the TF-120 and the TF-240, respectively.

|  |  |
| --- | --- |
| a. | 600, 800, 1,200, and 1,600 |
| b. | 10, 15, 20, and 30 |
| c. | 360, 480, 720, and 960 |
| d. | 400, 600, 800, and 1,200 |

ANS: A PTS: 1 DIF: Hard

41. If Harcourt Manufacturing adopted a mixed-model mode of production, how long would it take to go through a production cycle?

|  |  |
| --- | --- |
| a. | 60 minutes |
| b. | 70 minutes |
| c. | 90 minutes |
| d. | 124 minutes |

ANS: B PTS: 1 DIF: Hard

42. Jolly Ice Cream makes a premium gelato in relatively small batches. The daily demand is estimated to be 1,800 pints per day. If they require a 10% level of safety stock, have a leadtime of one day, and use containers that hold 25 pints, how many Kanbans (with appropriate rounding) would be needed?

|  |  |
| --- | --- |
| a. | 70 |
| b. | 80 |
| c. | 90 |
| d. | 96 |

ANS: B PTS: 1 DIF: Easy

43. Jolly Ice Cream makes a premium gelato in relatively small batches. The daily demand is estimated to be 1,800 pints per day. If they have a safety stock level of zero, have a leadtime of one day, and use containers that hold 25 pints, how many Kanbans (with appropriate rounding) would be needed ?

|  |  |
| --- | --- |
| a. | 66 |
| b. | 68 |
| c. | 70 |
| d. | 72 |

ANS: D PTS: 1 DIF: Easy

44. Total Vision manufactures eyeglass frames. They produce three models—Deluxe, Modern, and Budget. Each line is produced on one of three separate lines. The daily demand for the Deluxe line is 1,200 units, the Modern line daily demand is 1,500 units, and the daily demand for the Budget line is 2,400 units. If each line has 1–eight hour shift, what is the cycle time for the Budget brand?

|  |  |
| --- | --- |
| a. | 0.40 minutes |
| b. | 0.32 minutes |
| c. | 0.28 minutes |
| d. | 0.20 minutes |

ANS: D PTS: 1 DIF: Medium

45. Total Vision manufactures eyeglass frames. They produce three models—Deluxe, Modern, and Budget. Each line is produced on one of three separate lines. The daily demand for the Deluxe line is 1,200 units, the Modern line daily demand is 1,500 units, and the daily demand for the Budget line is 2,400 units. If each line has 1–eight hour shift, what is the cycle time for the Modern brand?

|  |  |
| --- | --- |
| a. | 0.40 minutes |
| b. | 0.32 minutes |
| c. | 0.28 minutes |
| d. | 0.20 minutes |

ANS: B PTS: 1 DIF: Medium

46. Xebec Chemicals produces specialty chemical products. It produces two types of solvents: S-98 and S-150. Both solvents are sold in 5-gallon canisters. The daily demand for S-98 is 1,800 gallons. Xebec uses a leadtime of two days for S-98 and a safety stock level of 10%. The other solvent S-150 has a daily demand of 1,000 gallons. It has a leadtime of four days and, because of greater uncertainty, Xebec uses a safety stock of 25%. Xebec uses containers that hold 20 5-gallon canisters. What would be the required number of Kanbans for the S-98 solvent (with appropriate rounding)?

|  |  |
| --- | --- |
| a. | 25 |
| b. | 30 |
| c. | 40 |
| d. | 50 |

ANS: C PTS: 1 DIF: Medium

47. Xebec Chemicals produces specialty chemical products. It produces two types of solvents: S-98 and S-150. Both solvents are sold in 5-gallon canisters. The daily demand for S-98 is 1,800 gallons. Xebec uses a leadtime of two days for S-98 and a safety stock level of 10%. The other solvent S-150 has a daily demand of 1,000 gallons. It has a leadtime of four days and, because of greater uncertainty, Xebec uses a safety stock of 25%. Xebec uses containers that hold 20 5-gallon canisters. What would be the required number of Kanbans for the S-150 solvent (with appropriate rounding)?

|  |  |
| --- | --- |
| a. | 25 |
| b. | 30 |
| c. | 40 |
| d. | 50 |

ANS: D PTS: 1 DIF: Hard

48. Nature’s Best Bakery produces cakes and pastries for a large supermarket chain. They run three separate lines producing croissants, sweet rolls, and danishes. The daily demand for these pastries are as follows: croissants—3,600; sweet rolls—8,000; and danishes—2,200. For all three products, Nature’s Best Bakery uses containers that hold 50 pastries. A safety stock level of 10% isused for all three pastries Leadtime for croissants and sweet rolls are one-half a day, while the leadtime for danishes is one day. What would be the required number of Kanbans for the croissants (with appropriate rounding)?

|  |  |
| --- | --- |
| a. | 40 |
| b. | 49 |
| c. | 88 |
| d. | 90 |

ANS: A PTS: 1 DIF: Easy

49. Nature’s Best Bakery produces cakes and pastries for a large supermarket chain. They run three separate lines producing croissants, sweet rolls, and danishes. The daily demand for these pastries are as follows: croissants—3,600; sweet rolls—8,000; and danishes—2,200. For all three products, Nature’s Best Bakery uses containers that hold 50 pastries. A safety stock level of 10% is used for all three pastries. Leadtime for croissants and sweet rolls are one-half a day, while the leadtime for danishes is one day. What would be the required number of Kanbans for sweet rolls (with appropriate rounding)?

|  |  |
| --- | --- |
| a. | 40 |
| b. | 49 |
| c. | 88 |
| d. | 90 |

ANS: C PTS: 1 DIF: Medium

50. Nature’s Best Bakery produces cakes and pastries for a large supermarket chain. They run three separate lines producing croissants, sweet rolls, and danishes. The daily demand for these pastries are as follows: croissants—3,600; sweet rolls—8,000; and danishes—2,200. For all three products Nature’s Best Bakery uses containers that hold 50 pastries. A safety stock level of 10% is used for all three pastries. Leadtime for croissants and sweet rolls are one-half a day, while the leadtime for danishes is one day. What would be the required number of Kanbans for the danishes (with appropriate rounding)?

|  |  |
| --- | --- |
| a. | 40 |
| b. | 49 |
| c. | 88 |
| d. | 90 |

ANS: B PTS: 1 DIF: Medium