I. USE THE NORMAL TABLE.

4. GIVEN $\mu = 63$, $\sigma = 5.4$, FIND $P(x > 55) =$
5. GIVEN $\mu = 485$, $\sigma = 31.1$, FIND $P(x < 400) =$
6. GIVEN $\mu = 46$, $\sigma = 4.1$, FIND $P(33 < x < 63) =$
7. GIVEN $\mu = 660$, $\sigma = 57.1$, $n = 40$ FIND $P(645 < x < 670) =$
8. GIVEN A NORMALLY DISTRIBUTED POPULATION WITH $\mu = 77.7$, $\sigma = 8.8$, $n = 12$ FIND $P(75 < x < 80) =$
9. GIVEN A NORMALLY DISTRIBUTED POPULATION WITH $\mu = 146.3$, $\sigma = 46.2$, $n = 53$ FIND $P(133.1 < x < 137.2) =$

II. IF 35% OF A GROUP OF MARTIANS ARE KARGS, AND A SAMPLE OF 220 MARTIANS ARE RANDOMLY SELECTED, FIND THE PROBABILITY THAT THE PROPORTION WHICH ARE KARGS WILL BE

10. MORE THAN .282:
11. FEWER THAN .427:
12. BETWEEN .382 AND .418:

III. SUPPOSE THAT THE LENGTHS OF ANTANAE ON KARGS (FROM THE PLANET MARS) ARE NORMALLY DISTRIBUTED WITH MEAN OF 56.8cm AND STANDARD DEVIATION OF 3.2cm. FIND THE PROBABILITY THAT A RANDOMLY SELECTED KARG WILL HAVE ANTANAE WHICH ARE:

13. SHORTER THAN 50cm.
14. LONGER THAN 48.3cm.
15. BETWEEN 51cm AND 62cm.
16. EXACTLY 58cm.
17. WHAT VALUE DETERMINES THE 98^{TH} PERCENTILE?

IIII. ASSUME THAT THE WEIGHTS OF KARGS HAS A MEAN OF 552.2kg AND STANDARD DEVIATION OF 32.1kg. IF A RANDOM SAMPLE OF 110 KARGS IS SELECTED, WHAT IS THE PROBABILITY THAT THE SAMPLE WILL HAVE A MEAN WEIGHT THAT IS:

18. BELOW 560 ?
19. BETWEEN 543 AND 547 ?
20. ABOVE 545 ?
21. BETWEEN 550 AND 560 ?
22. ABOVE 565 ?

VI. SUPPOSE THAT 64% OF KARGS HAVE BEEN TO THE VIKING SPACECRAFT LANDING SITE. FIND THE PROBABILITY THAT OUT OF A RANDOM SAMPLE OF 55 KARGS, THE PROPORTION OF KARGS WHICH HAVE BEEN TO THE VIKING LANDING SITE WILL BE:

23. LESS THAN .51:
24. GREATER THAN .472:
25. BETWEEN .727 AND .777: