

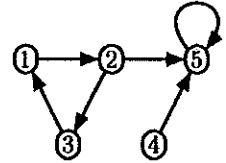
FINITE TEST 2013 page 2

10. For a set of values, suppose the mean is 27 and the standard deviation is 3. To get a new set of values, each value in the original set is multiplied by 3 and 7 is added. What is the mean and the standard deviation for the new set of values?

- A) Mean 88; Standard deviation 16
 B) Mean 88; Standard deviation 9
 C) Mean 88; Standard deviation 81
 D) Mean 81; Standard deviation 16

11. The graph depicted at the right is a:

- A) simple graph B) directed graph C) pseudograph D) directed multigraph



12. The matrix below gives total number of cups which Jorge's Juice stand sells on an average weekend. If Jorge charges \$0.90 for small cups, \$1.50 for medium size, \$2.40 for large serving, and \$3.00 for extra large gulps. Which juice drink produces the most revenue and how much revenue did it produce?

	Sm	Med	Lg	XL
orange	60	70	90	40
cranberry	100	40	60	70
mango	50	20	40	110

- A) orange; \$495 B) mango; \$510 C) cranberry; \$504 D) orange; \$540

13. A lake initially contains 4000 fish. Each year the population declines 20% due to fishing and other causes, and the lake is restocked with 400 fish. What happens to the population of fish long term?

- A) population goes to 400 fish B) population goes to 2000 fish
 C) population continues to increase forever D) population goes to 3200 fish

14. You are saving money for the Prom. If you save \$0.05 the first day, \$0.06 the second day, and \$0.07 the third day, how many days will you need to reach your goal of \$500?

- A) 942 days B) 562 days C) 312 days D) 120 days

15. A local concert sold a total of 8000 youth and adult tickets for a weekend show. If there were 1200 more adult tickets sold, how many youth tickets were sold?

- A) 3600 B) 3550 C) 3400 D) 3325

16. Find the area of a triangle with vertices (6,3), (5,-4), and (8,-1).

- A) 9 B) 18 C) 10 D) 12

17. A rabbit hopping across a field hops 15 feet on the first jump then hops 75% of the previous distance on each successive jump. If the rabbit hops infinitely many times how far does it travel?

- A) infinite distance B) 15 feet C) 45 feet D) 60 feet

18. Which of the following represents a solution to the system

$$\begin{cases} x+2y-z=-4 \\ 3y+z=1 \\ 2x-2y-4z=-10 \end{cases}$$

- A) (2,1,-2) B) (1,1,6) C) (2,-1,4) D) there are no solutions

FINITE TEST 2013 Answer Key

1. A
2. D
3. B
4. C
5. A
6. C
7. D
8. B
9. A
10. B
11. B
12. C
13. B
14. C
15. C
16. A
17. D
18. C