

Vet Tech Mathematics

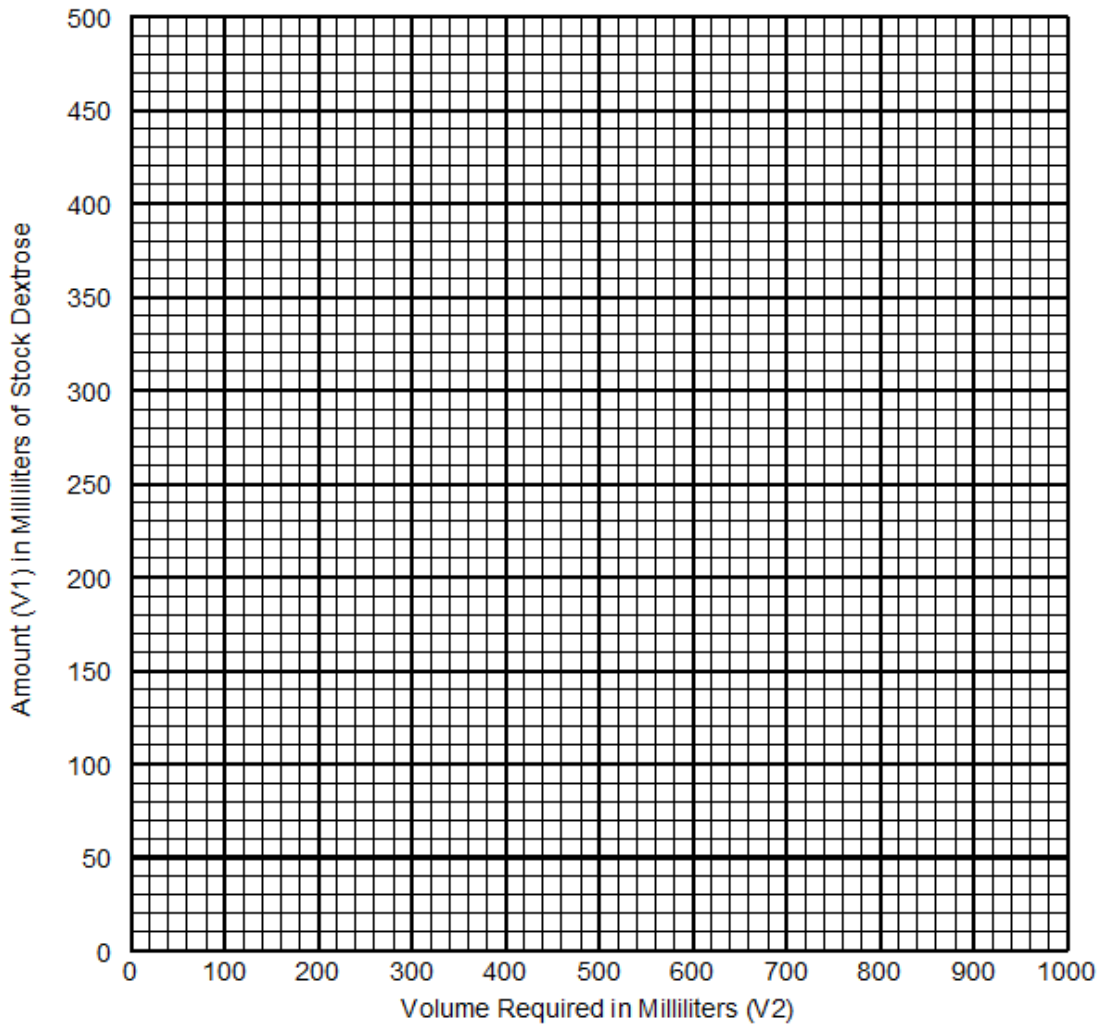
Name: _____

Date: _____

1. Calculate V1 for 30% and 40% concentration of dextrose. Plot the four points and draw the two lines, one for 30% stock dextrose and one for 40% stock dextrose.

Stock Concentration (C1)	Volume Required (V2)	Concentration Required (C2)	Stock Required (V1)
30%	50 ml	10%	
30%	1000 ml	10%	
40%	50 ml	10%	
40%	1000 ml	10%	

Amount (V1) of Dextrose Concentration in Milliliters to Make 10% Dextrose



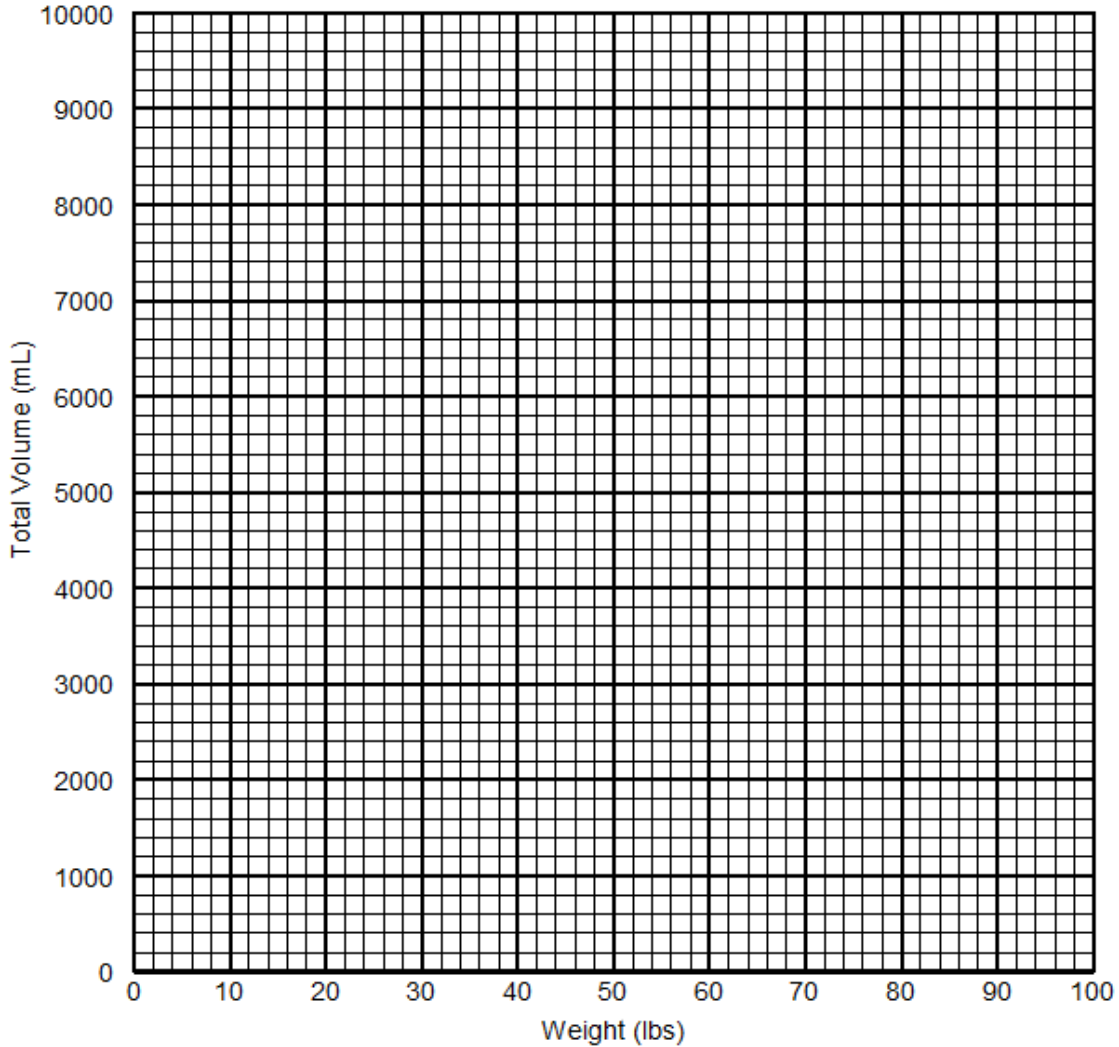
2. Determine the amount of stock dextrose to make the required volume of 10% dextrose (C2). On the bottom of the graph locate the volume (V2) needed of 10% dextrose. Follow that point vertically to the sloped line representing the stock concentration (C1). Go to the left to determine the amount (V1) in ml required.

Volume Required	Stock Concentration	Amount of Stock (ml)
250 ml	30%	
800 ml	30%	
300 ml	40%	
850 ml	40%	

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3. Calculate the following for 8.5 percent dehydration and plot two points for the patient's weight and total volume on the chart by drawing a sloped line between the two points.

Patient weight	Replacement Volume	Maintenance Volume	Total Volume
5 lbs			
100 lbs			



4. Determine the total fluid volume for the following patients weighing between 5 and 100 pounds. Find the patient's weight and go vertically to the sloped line representing the percent of dehydration. Record the total fluid volume in milliliters from the horizontal line.

Patient's Weight	% Dehydration	Total Fluid Volume (ml)
15 lbs	8.5%	
25 lbs	8.5%	
35 lbs	8.5%	
45 lbs	8.5%	
60 lbs	8.5%	
75 lbs	8.5%	
90 lbs	8.5%	

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Mean, Median and Mode

We measure the dog's weight in pounds for the 20 dogs in our kennel.

69	85	70	71	92	74	93	81	82	96
90	91	84	79	89	94	97	86	82	77

5. Order the data

6. What is the range?

7. What is the mean, median and mode

8. What is the percentage of the dogs that weigh less than 86 lbs?

9. What is the percentage of the dogs that weigh more than 90 lbs?

We have collected temperature data (in degrees Celsius) on the dogs in the kennel. There are 20 dogs. Order the data from smallest to largest. Find the mean, median, mode and range for the data.

37.2	38.3	38.9	37.4	38.2	37.3	38.1	38.4	38.6	37.7
37.6	37.9	38.2	38.7	38.4	38.1	38.8	37.9	38.9	39.2

10. Order the data

11. What is the range?

12. What is the mean, median and mode?