

**GRADE 11 ESSENTIAL
UNIT D - STATISTICS
LINE GRAPHS AND PIE CHARTS**

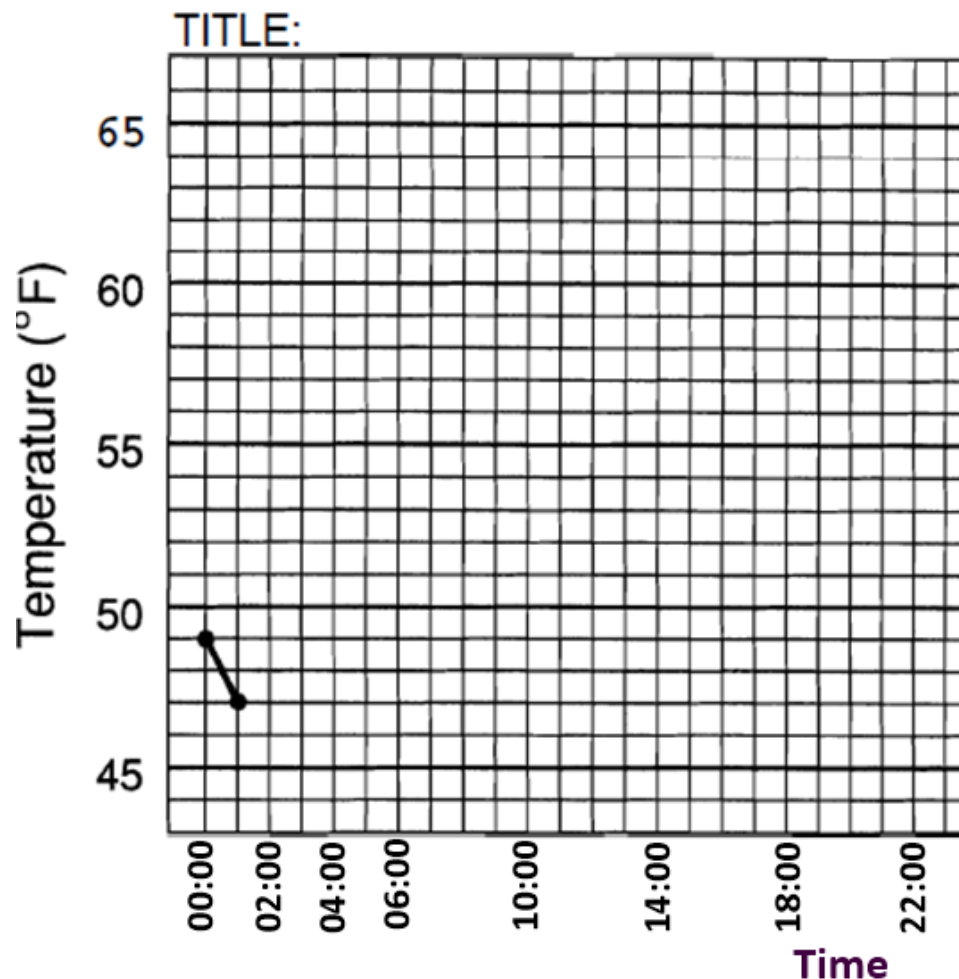
Name: _____

Date: _____

Line Graph Fun. A line graph displays information of data as 'markers' connected by straight **line** segments. The dependent (observed) data on the vertical axis is a **function** of the independent (controlled data) along the horizontal axis.

1. Use the data below to make a line graph showing the temperature each hour for a day.

Hourly Temperatures			
A.M.		P.M.	
12:00	49°F	12:00	61°F
1:00	47	1:00	62
2:00	46	2:00	63
3:00	46	3:00	65
4:00	45	4:00	65
5:00	46	5:00	64
6:00	48	6:00	60
7:00	51	7:00	58
8:00	53	8:00	56
9:00	54	9:00	52
10:00	57	10:00	51
11:00	59	11:00	48

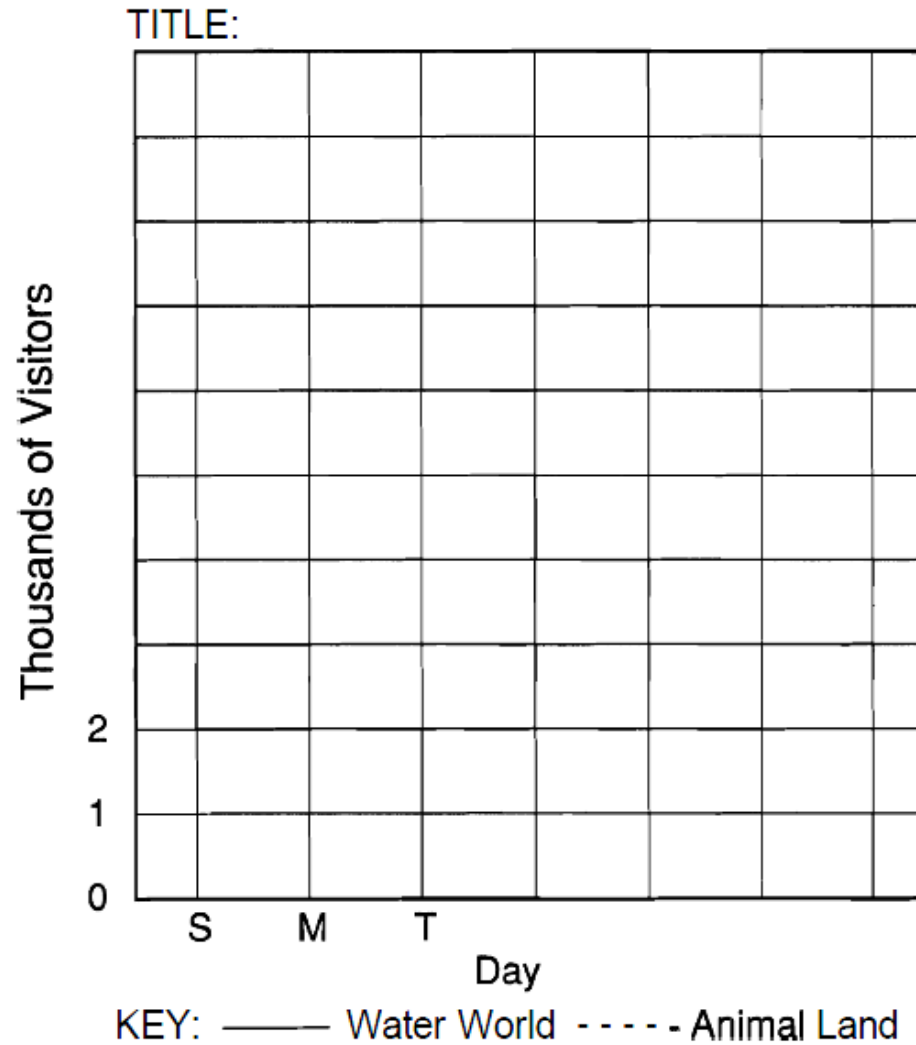


2. Use the data below to make a double-line graph showing the number of visitors at two amusement parks each day for a week.

Begin by completing the horizontal and vertical scales.

Daily Attendance		
Day	Water World	Animal Land
Sun	7,967	5,140
Mon	3,512	1,864
Tues	3,833	1,328
Wed	4,760	2,465
Thurs	4,184	5,730
Fri	5,675	3,291
Sat	9,326	4,622

Follow the Key (Legend) for the type of line to use for each series of the graph

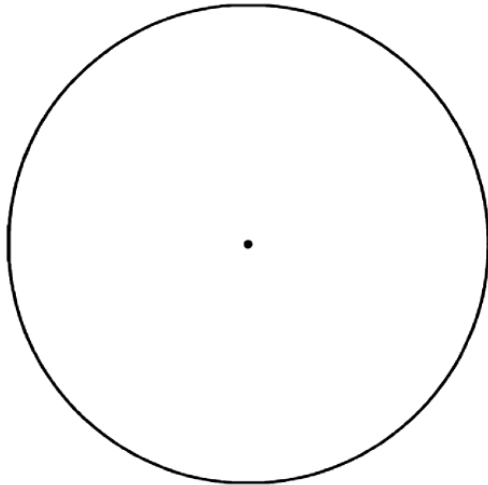


Circle Graphs (or Pie Charts). Show the amount of each data category as a sector of a circle. There are 360° of angle measured from the centre to go around a circle. Sectors can be shaded different colours or different patterns to be really elegant and convincing! Really easy to do on your device.

What Do You Call a Person Who Buys and Sells Bugs?

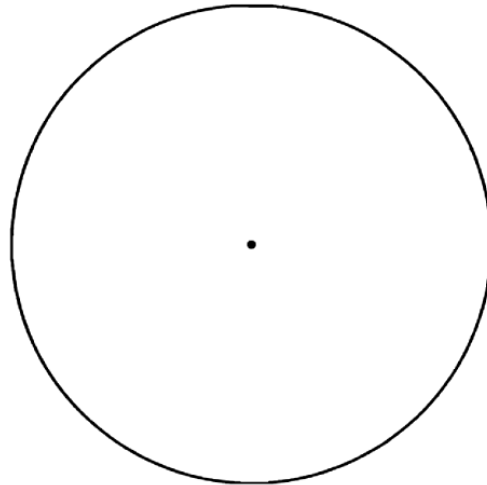


Find the measure of each central angle (rounded to the nearest degree). Write the letter for each answer in the box containing the answer at the bottom of the page. Construct a circle graph for each set of data.



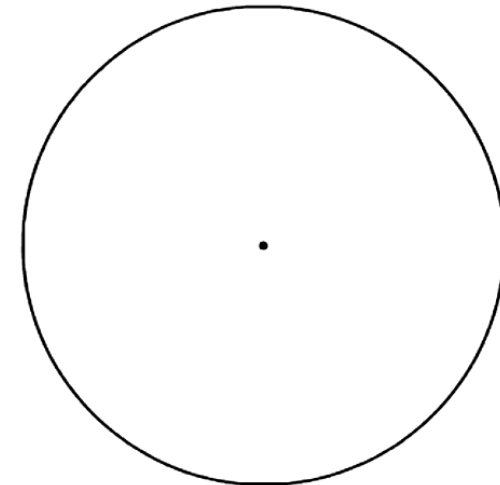
Favorite Kind of Pie
(results of a survey)

Kind	% of total	Central angle
Apple	30%	(C)
Cherry	16%	(A)
Lemon meringue	21%	(E)
Other	33%	(R)



Land Use in a National Park

Land Use	% of total	Central angle
Forests	18%	(I)
Mountains	27%	(N)
Campgrounds	5%	(A)
Grasslands	41%	(T)
Lakes/Streams	9%	(E)



Advertising Budget

Medium	% of total	Central angle
Newspapers	25%	(K)
Magazines	20%	(A)
Television	29%	(D)
Radio	8%	(N)
Direct mail	15%	(L)
Outdoor		(T)

72°	97°	101°	58°	29°	148°	62°	11°	65°	108°	90°	16°	104°	76°	18°	54°	32°	119°
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Why Did King Kong Play with the Flying Saucer?

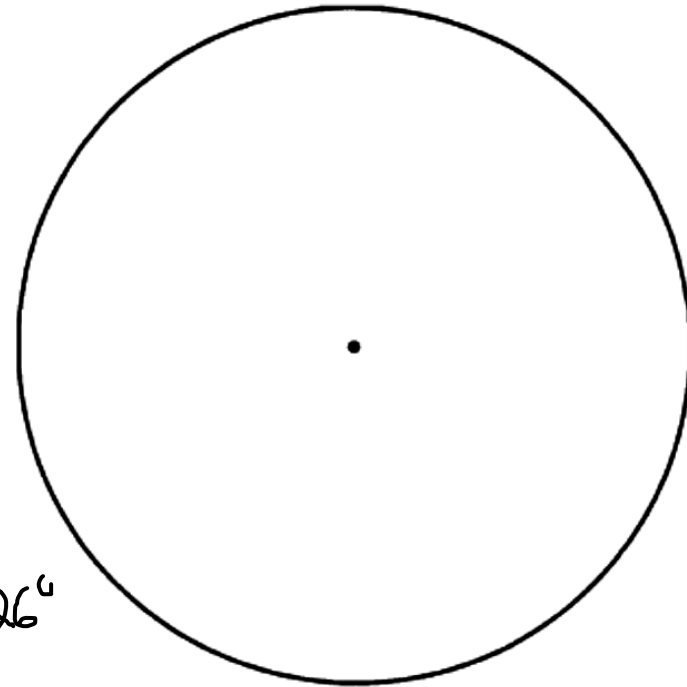
Complete each table. (Round each answer to the nearest whole number, if necessary.) Write the letter for each answer in the circle at the bottom of the page that contains the answer. Construct a circle graph for each set of data.



Instruments in the *Arithmics* Rock Band

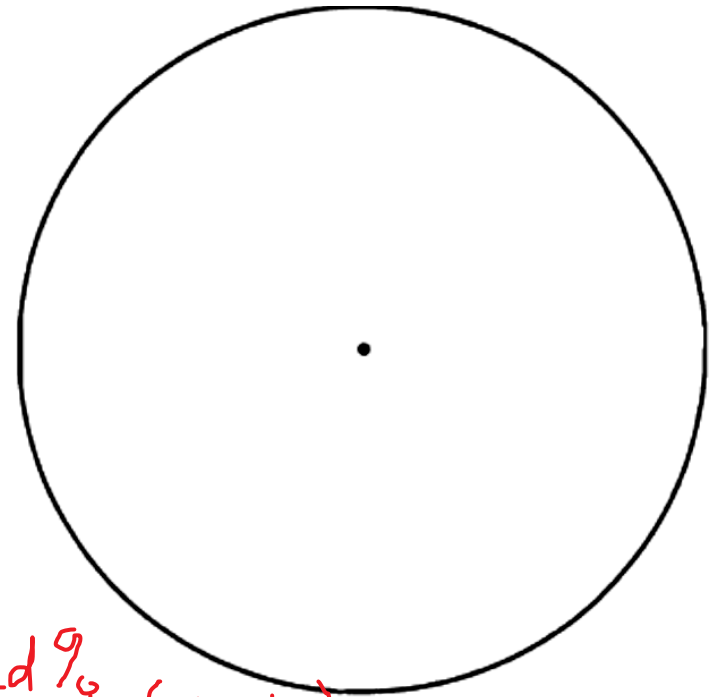
Family of Instruments	Number of Players	Percent of total	Central angle
Brass	7	(H) 35%	(T) 126°
Woodwind	4	(E)	(G)
Strings	5	(A)	(O)
Percussion	3	(S)	(E)
Keyboard	1	(T)	(I)
TOTAL	20	100%	360°

$$\frac{7}{20} = 0.35 = 35\% \quad 35/100 \cdot 360^\circ = 126^\circ$$



Clubs at Jaws Junior High

Club	Number of Members	Percent of total	Central angle
Drama	22	(A)	(H)
Crafts	27	(U)	(S)
Computer	16	(E)	(I)
Magic	10	(F)	(T)
Games	15	(H)	(B)
TOTAL		(W)	(R)



↑ Use the rounded %
to calculate the angle (dumb?)

