

Procedure for Constructing a Circle Graph

| | |
|---------|---------------------------------|
| Step 1: | Find the whole. |
| Step 2: | Find the parts. |
| Step 3: | Find the degrees for each part. |
| Step 4: | Draw and label each part. |
| Step 5: | Give the graph a title. |

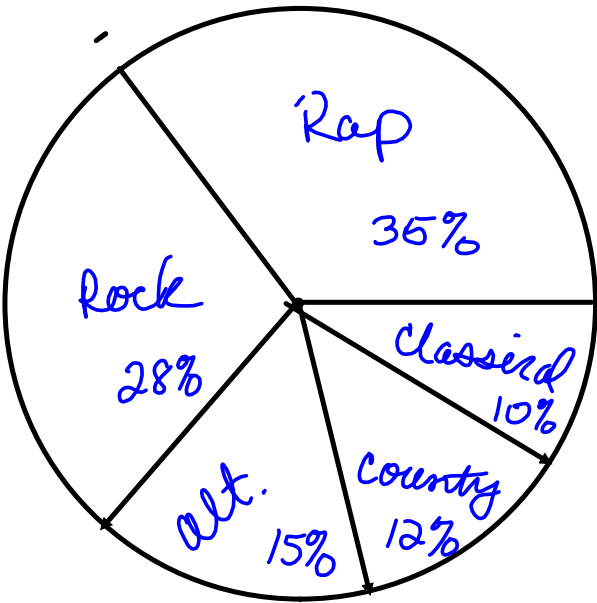
Example: The table below shows the music preferences of 300 students at Adams School. Each student voted only once. Construct a circle graph to represent this data.

| Music Preferences of Students at Adams School | |
|--|---------------------------|
| Music Type | Number of Students |
| Rap | 105 |
| Rock and Roll | 84 |
| Alternative | 45 |
| Country | 36 |
| Classical | 30 |

300

| Music Preferences of Students at Adams School | | | | |
|---|--------------------|-------------------------|--------------------------------|------------------|
| Music Type | Number of Students | Percent | Decimal | Degrees |
| Rap | 105 | $\frac{105}{300} = .35$ | $\times 360^\circ = 126^\circ$ | |
| Rock and Roll | 84 | $\frac{84}{300} = .28$ | $\times 360^\circ = 101^\circ$ | |
| Alternative | 45 | $\frac{45}{300} = .15$ | $\times 360^\circ = 54^\circ$ | |
| Country | 36 | $\frac{36}{300} = .12$ | $\times 360^\circ = 43^\circ$ | |
| Classical | 30 | $\frac{30}{300} = .10$ | $\times 360^\circ = 36^\circ$ | |
| Total | <u>300</u> | | <u>1</u> | <u>360^\circ</u> |

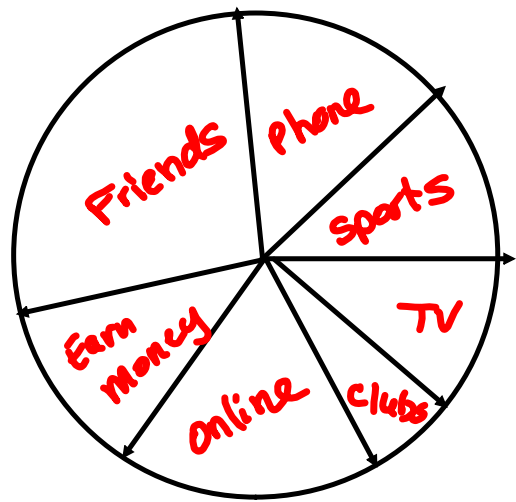
Music Preferences at Adams School

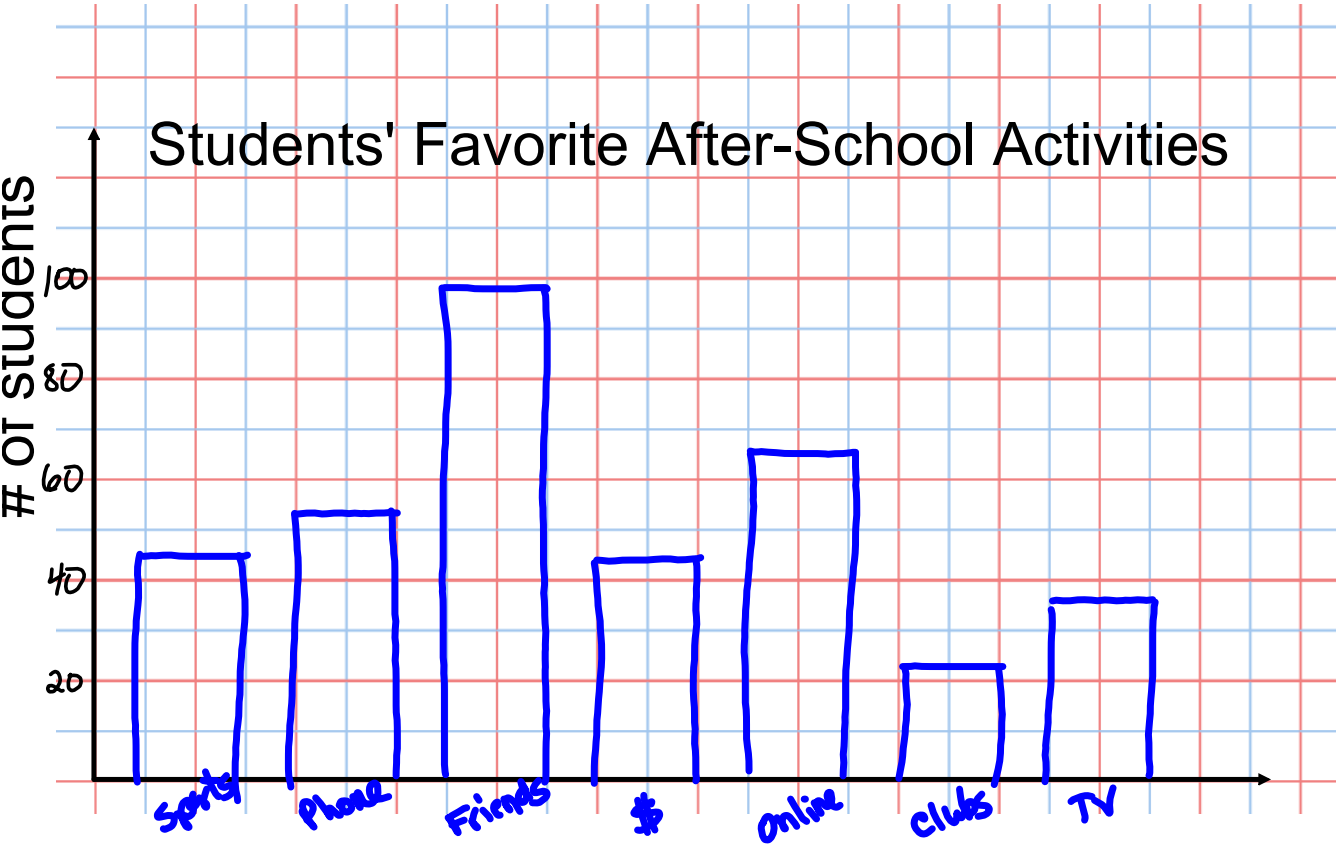


Use this data to create a bar graph and a circle/pie chart.

| Students' Favorite After-School Activities | | | |
|--|--------------------|----------------|-----------------------|
| Activity | Number of Students | Percent | Degrees |
| Play Sports | 45 | $45/366 = .12$ | $.12 \times 360 = 44$ |
| Talk on Phone | 53 | $53/366 = .14$ | 52 |
| Visit With Friends | 99 | $99/366 = .27$ | 97 |
| Earn Money | 44 | $44/366 = .12$ | 43 |
| Chat Online | 66 | $66/366 = .18$ | 65 |
| School Clubs | 22 | $22/366 = .06$ | 22 |
| Watch TV | 37 | $37/366 = .10$ | 36 |
| <u>366</u> | | | |

Students' Favorite After-School Activities

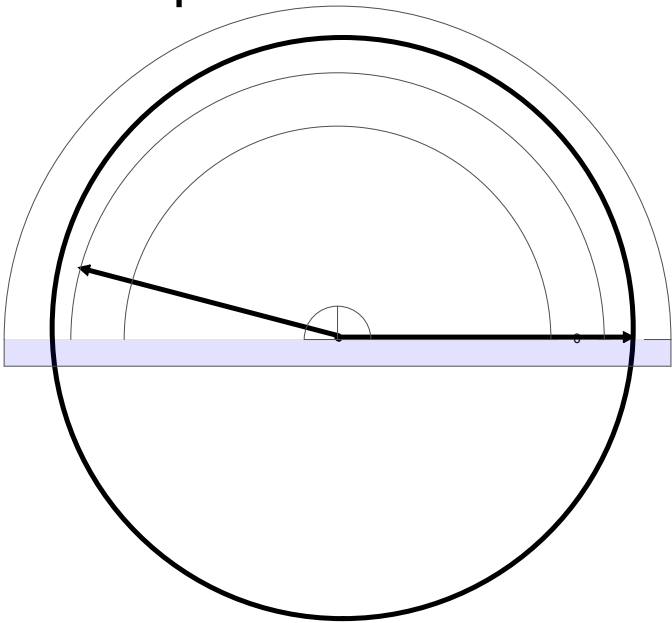




Exercise 2: The students at a small school were surveyed to determine what method of transportation is used to get to and from school as shown in the table below. Construct a circle graph to visually display this data.

| Transportation to School | |
|--------------------------|------------------------------|
| Method | Percent |
| Bus | .46 $\times 360 = 166^\circ$ |
| Car | .21 $\times 360 = 76^\circ$ |
| Bicycle | .17 $\times 360 = 61^\circ$ |
| Walk | .11 $\times 360 = 40^\circ$ |
| Other | .05 $\times 360 = 18^\circ$ |

Transportation To School



Transportation to School

