Name: Dooher

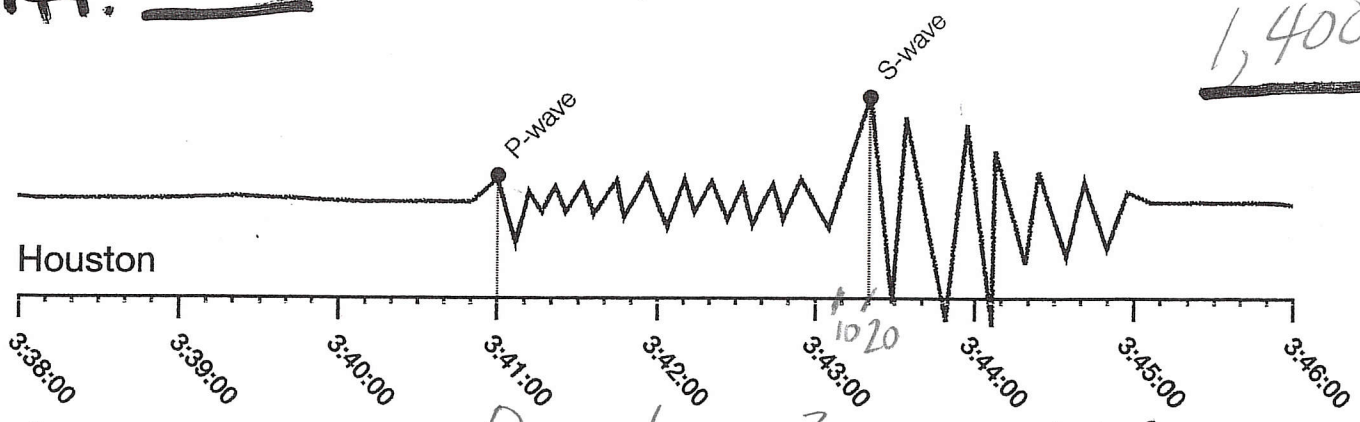
Reading Seismograms

Lab Activity: Locating Epicenters

Seismograms B

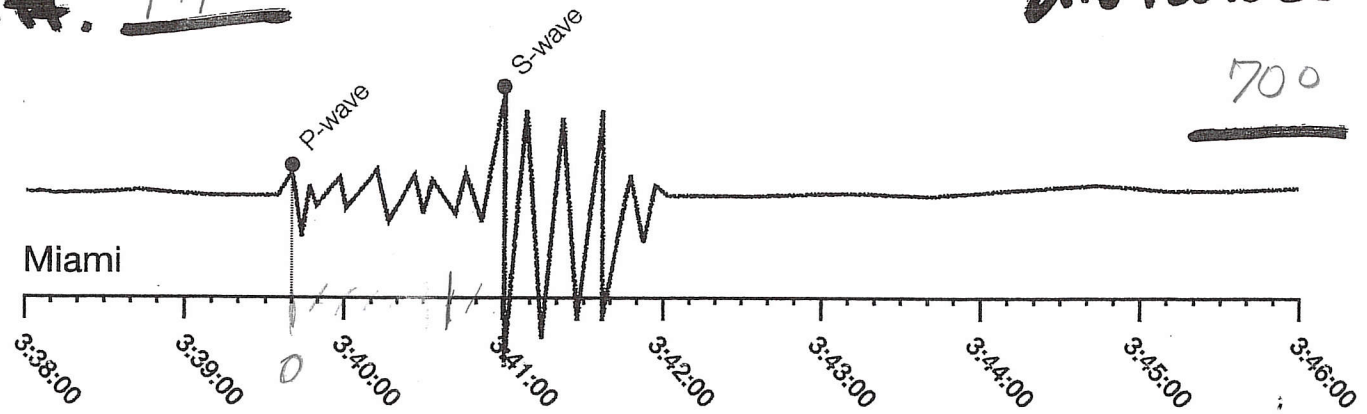
diff. 2:20

distance 1,400



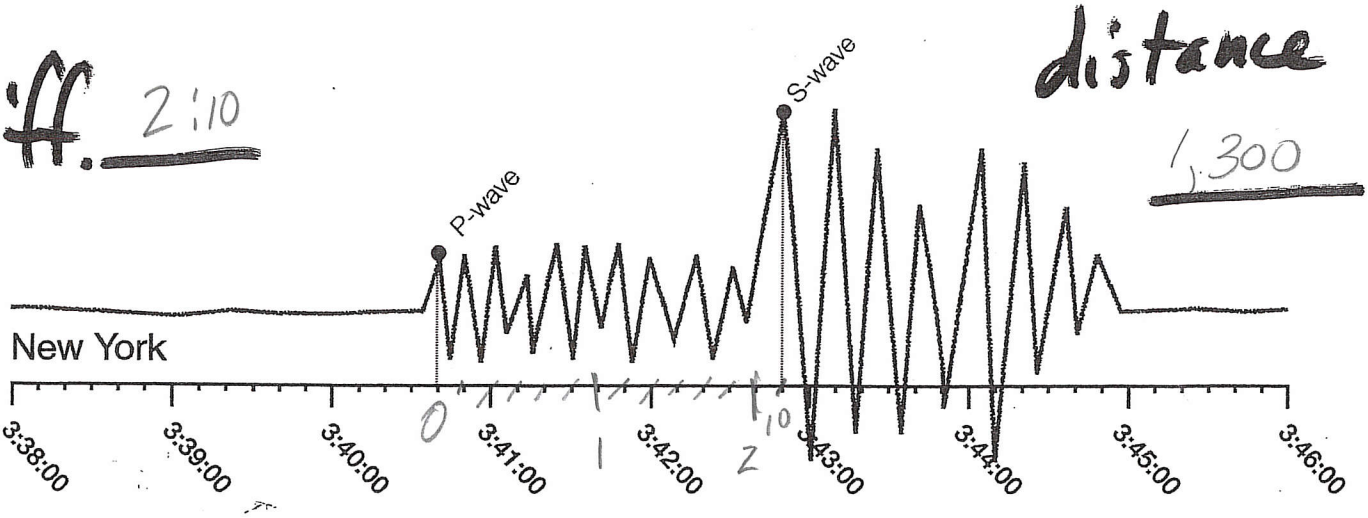
diff. 1:10

distance 700



diff. 2:10

distance 1,300

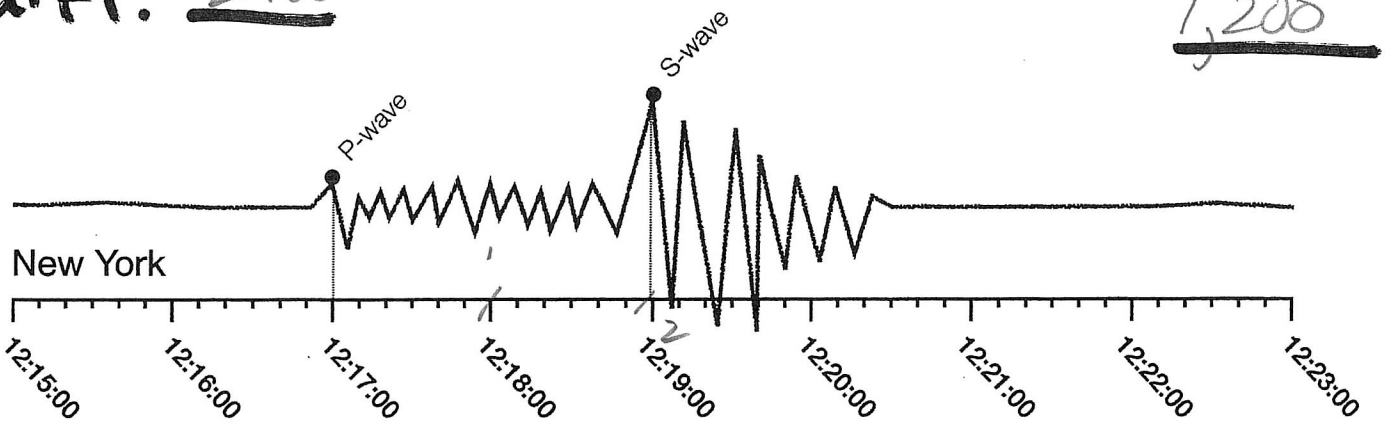


Lab Activity: Locating Epicenters

Seismograms A

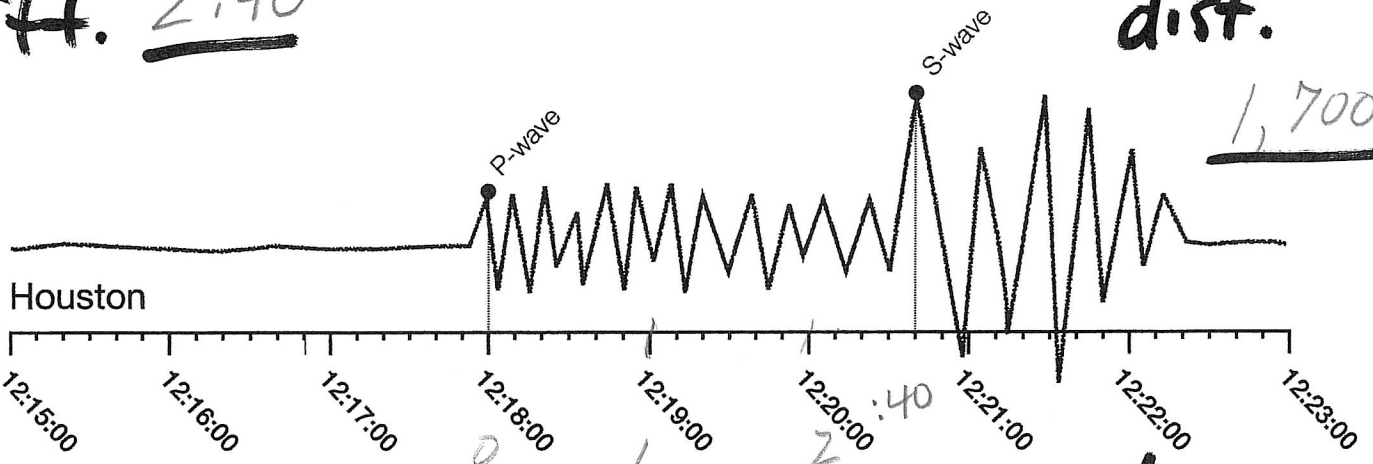
diff. 2:00

distance: 1,200



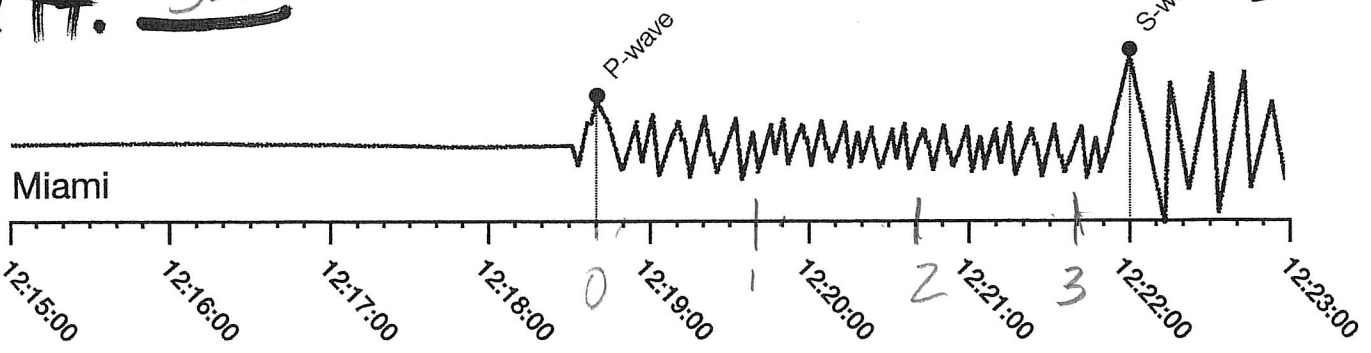
diff. 2:40

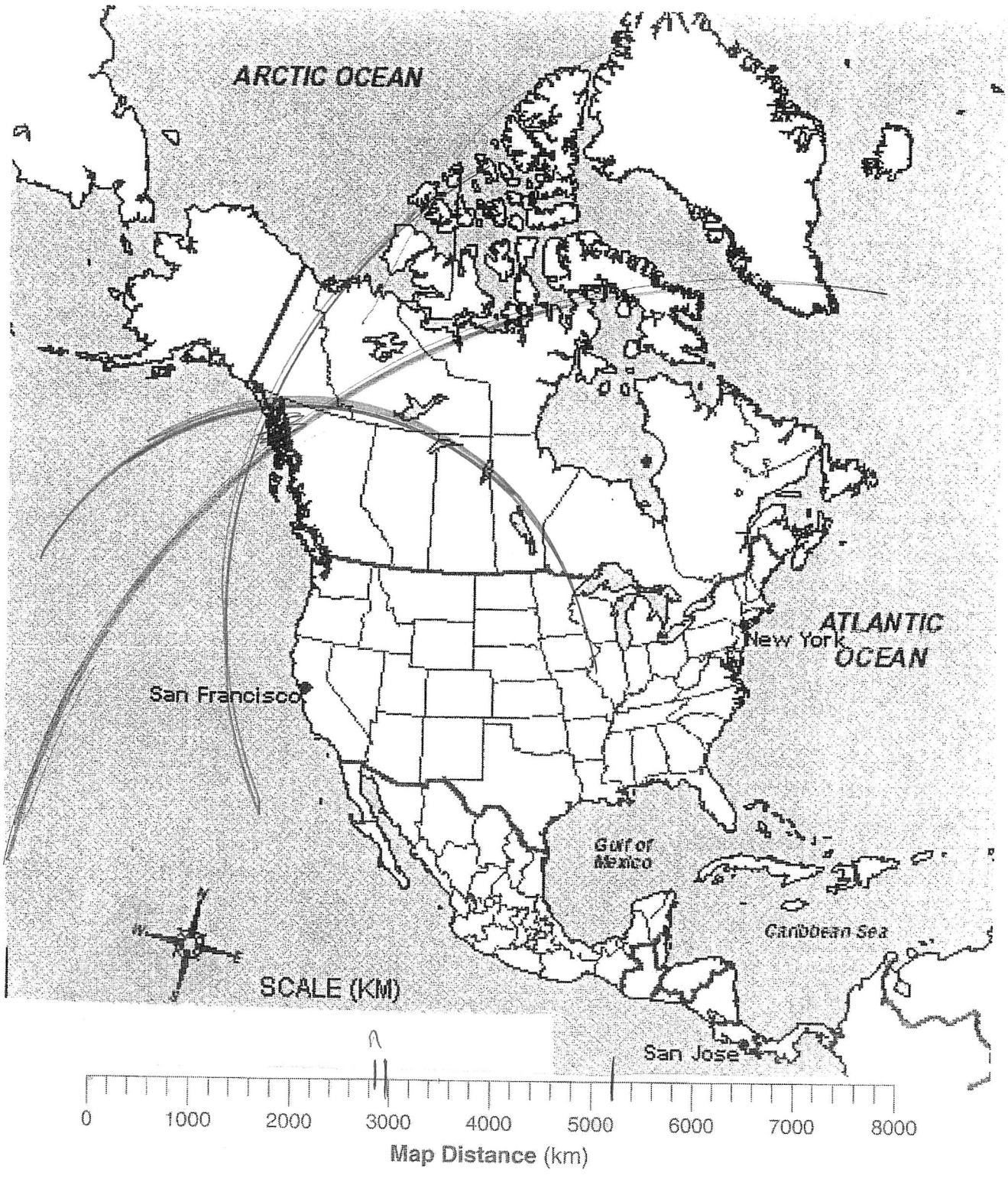
dist. 1,700



diff. 3:20

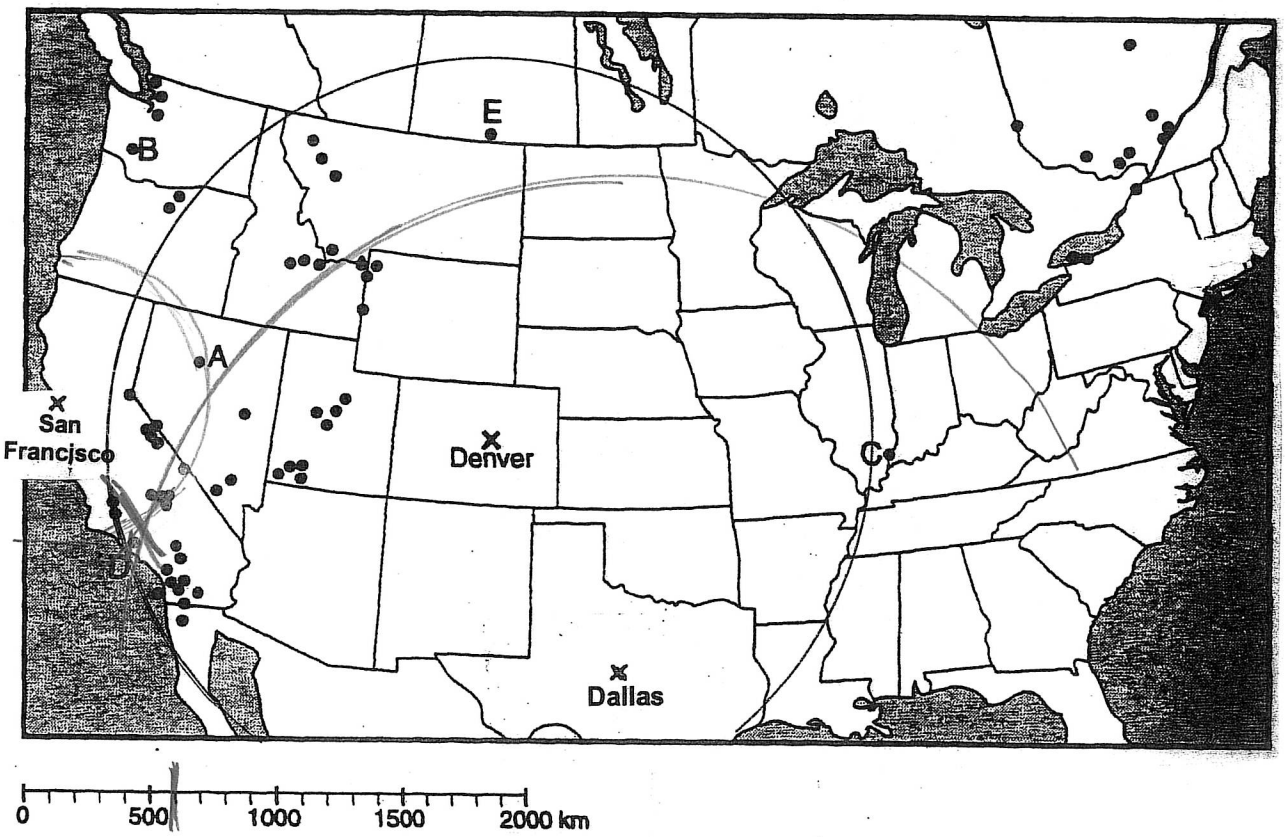
dist. 2,100




ARCTIC OCEAN
ATLANTIC OCEAN
New York
San Francisco
Gulf of Mexico
Caribbean Sea
San Jose
SCALE (KM)
0
1000
2000
3000
4000
5000
6000
7000
8000
Map Distance (km)

Station 5: epicenter plotting

The map below shows epicenters of some earthquakes that occurred in the United States. Five epicenters are labeled A through E. Denver, Dallas, and San Francisco are also indicated.



City	Difference in P and S Wave Arrival Time (min:sec)	Distance (km)
Denver, Colorado	2 : 40	1,500
Dallas, Texas	3 : 20	2,000
San Francisco, California	1 : 15	600

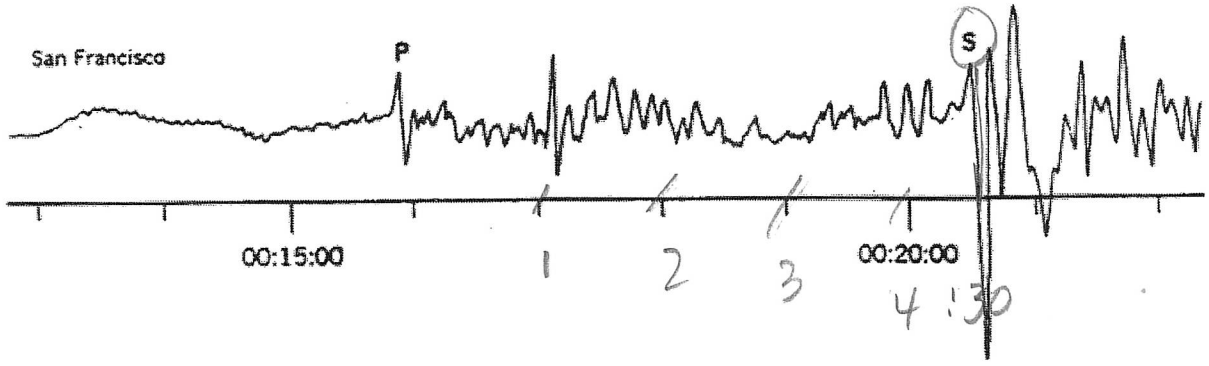
a. Fill in the chart above by using the difference in P and S wave arrival time for an earthquake recorded in Dallas to determine the epicenter distance (use the reference table chart).

b. Use the compass to draw the epicenter distances for Dallas and San Francisco.

c. Which letter is closest to the epicenter for the earthquake recorded in the chart: _____

Use the compass to draw the epicenter distance from New York City. Use the seismogram to below to determine the arrival time difference between the P and S waves for San Francisco. Record your answer HERE: 4:30 Use the time you calculated and the Earthquake P-wave and S-wave Travel Time graph to determine the distance from San Francisco to the epicenter. Record your answer in the table below. Use the compass to draw a circle on the map centered on San Francisco. Mark the epicenter location with an **X.**

SEISMOGRAPH LOCATION	Distance to Epicenter	
San Jose, Costa Rica	DONE	kilometers
New York, NY, USA	5,200	kilometers
San Francisco, CA, USA	3,000	kilometers



4:30
3:20

0