



The table below shows the amount of carbon dioxide in the Earth's atmosphere for selected years. (Source: the Weather Channel). Find the average rate of change from 1968 to 2003.

| Year | CO_2 in |
|------|------------|
| | Atmosphere |
| | (ppm) |
| 1968 | 324.14 |
| 1983 | 343.91 |
| 1998 | 367.68 |
| 2003 | 376.68 |
| 2008 | 385.60 |

Imagine that you are shopping for a vehicle. One of the cars you are considering sells for \$22 000 new. However, like most vehicles, this car loses value, or depreciates, as it ages. The table to the right shows the value of the car over a 10-year period.

Find the average rate of change from year 3 to year 5.

| Time (years) | Value (\$) |
|-----------------|---------------|
| 0 | 22 000 |
| 1 | 16 200 |
| 2 | 14 350 |
| 3 | 11 760 |
| 4 | 8 980 |
| 5 | 7 820 |
| 6 | 6 950 |
| 7 | 6 270 |
| 8 | 5 060 |
| 9 | 4 380 |
| 10 | 4 050 |

Imagine that you are shopping for a vehicle. One of the cars you are considering sells for \$22 000 new. However, like most vehicles, this car loses value, or depreciates, as it ages. The table to the right shows the value of the car over a 10-year period.

Find the average rate of change from year 0 to year 10.

| Time (years) | Value (\$) |
|-----------------|---------------|
| 0 | 22 000 |
| 1 | 16 200 |
| 2 | 14 350 |
| 3 | 11 760 |
| 4 | 8 980 |
| 5 | 7 820 |
| 6 | 6 950 |
| 7 | 6 270 |
| 8 | 5 060 |
| 9 | 4 380 |
| 10 | 4 050 |



Find the rate of change between point C and D



The table shows the height, H, of water being poured into a cone shaped cup at time, t. Find the average rate of change from 3 to 9 seconds.

| t (s) | H (cm) |
|-------|--------|
| 0 | 0 |
| 1 | 2.48 |
| 2 | 3.13 |
| 3 | 3.58 |
| 4 | 3.94 |
| 5 | 4.24 |
| 6 | 4.51 |
| 7 | 4.75 |
| 8 | 4.96 |
| 9 | 5.16 |
| 10 | 5.35 |