## Geography of Canada <br> CGC 1DI (Academic)

## Time Zones

The earth rotates in a $\qquad$ direction when you look down on it from the North Pole.

This means that the sun appears to rise in the $\qquad$ and appears to set in the $\qquad$ . It takes approximately $\qquad$ hours for one rotation of the earth. There are $\qquad$ degrees in the circumference of the earth, therefore, the earth rotates through $\qquad$ degrees in one hour.
As a result there are $\qquad$ one hour time zones spaced out around the earth, each covering about $\qquad$
$\qquad$ degrees. The equatorial circumference of the planet is approximately $\qquad$ kilometres, which means that a person standing on the equator is travelling at about $\qquad$ km/hr! (No...the earth will not stop spinning and hurl you!!)
You can tell that it is 12:00 noon at $0^{\circ}$ latitude and $0^{\circ}$ longitude in the spring and fall because

If it is $12: 00$ noon at $0^{\circ}$ latitude and $0^{\circ}$ longitude, what time is it at each of the following locations?

| Latitude | Longitude | Local Time |
| :---: | :---: | :---: |
| $0^{\circ}$ | $90^{\circ} \mathrm{E}$ |  |
| $0^{\circ}$ | $90^{\circ} \mathrm{W}$ |  |
| $0^{\circ}$ | $180^{\circ}$ |  |
| $30^{\circ} \mathrm{N}$ | $0^{\circ}$ |  |
| $60^{\circ} \mathrm{N}$ | $0^{\circ}$ |  |



As a result, lines of longitude are also known as $\qquad$ or $\qquad$
$\qquad$ . Time lines do not always follow lines of longitude. This may happen because of $\qquad$
$\qquad$ or $\qquad$
$\qquad$ -.
If it is $12: 00$ noon at $0^{\circ}$ latitude and $0^{\circ}$ longitude, all the places to the east are in the $\qquad$ , which stands for $\qquad$ . All places in the west are in the $\qquad$ , which stands for $\qquad$
$\qquad$ .
What happens to the length and direction of your shadow ( $0^{\circ}$ lat/ $0^{\circ}$ long) from 6:00 am to 12:00 noon? _

12:00 noon to 6:00 pm? $\qquad$
The Time Zones of Canada (from east to west) are:
$\qquad$

As you travel form east to west you set your watch $\qquad$ in time?

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Complete the time zone map of Canada, and fill in the following chart:

| IF THE TIME IS... | THEN THE TIME IS... |
| :--- | :--- |
| $7: 00$ in Victoria | in Quebec City |
| $8: 00$ in Yellowknife | in St. John's |
| $11: 00$ in Fredericton | in Whitehorse |
| $11: 30$ in St. John's | in Toronto |
| $9: 00$ in Regina | in Ottawa |
| $7: 00$ in Victoria | in St. John's |
| $8: 00$ in Halifax | in Edmonton |
| $11: 00$ in Charlottetown | in Fredericton |
| $9: 00$ in Winnipeg | in Whitehorse |
| $9: 30$ in Toronto | in Edmonton |
| $12: 00$ in Iqualuit | in Toronto |



