**Summary:**

100000+ variations. Formula manipulation.

**Question: >100000 Variations**

a) Complete each statement.

(i) If <EFOFEX>
id:fxe{b5fb547a-8c06-4b9b-a44b-c1cee13bb8a7}
FXGP:DP-UVFKMW3
FXData:

</EFOFEX>\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) If <EFOFEX>
id:fxe{6d8c0852-9d69-49ad-b006-7804f9904cf9}
FXGP:DP-HU2MU2K
FXData:

</EFOFEX> \_\_\_\_\_\_\_\_\_\_\_\_\_\_

(iii) Over the same distance, doubling the speed causes time to \_\_\_\_\_\_\_\_.

(iv) If the time of travel is constant then tripling the speed will \_\_\_\_\_\_\_ the distance.

b) Ryan travelled a distance of <EFOFEX>
id:fxe{93ca91c7-3727-4f24-91b1-a8a63b981e1e}
FXGP:DP-QM9C5K9
FXData:

</EFOFEX> km at <EFOFEX>
id:fxe{ad19d382-cc62-4ca4-a929-1b52b2086eeb}
FXGP:DP-QM9C5K9
FXData:

</EFOFEX> km/h. If he had taken the same amount of time, how far would he have travelled at <EFOFEX>
id:fxe{04a0bf74-2374-49ed-a572-f50a9f7a0715}
FXGP:DP-QM9C5K9
FXData:

</EFOFEX> km/h?

c) A gear having <EFOFEX>
id:fxe{9e61b224-3852-4b9e-84c0-8901beab84ae}
FXGP:DP-Y6XFG5Y
FXData:

</EFOFEX> teeth drives another which has <EFOFEX>
id:fxe{2967ac9a-1334-444d-9637-5a1fe3701ab0}
FXGP:DP-Y6XFG5Y
FXData:

</EFOFEX> teeth. If the first gear makes <EFOFEX>
id:fxe{fa16b65b-dfa3-43ef-8289-6aca7949847d}
FXGP:DP-Y6XFG5Y
FXData:

</EFOFEX> revolutions, how many revolutions does the second gear make?

**Solution:**

a) Complete each statement.

(i) If <EFOFEX>
id:fxe{b8fe012f-8b0a-4ffe-acc7-d5ec663d7517}
FXGP:DP-UVFKMW3
FXData:

</EFOFEX> <EFOFEX>
id:fxe{7262caa9-06fd-448a-a947-07e87958beed}
FXGP:DP-UVFKMW3
FXData:

</EFOFEX>

(ii) If <EFOFEX>
id:fxe{24344095-d440-45b7-9f5b-b80da7163e72}
FXGP:DP-HU2MU2K
FXData:

</EFOFEX> <EFOFEX>
id:fxe{892dd945-0962-45cb-ab1c-fbd64c0f5501}
FXGP:DP-HU2MU2K
FXData:

</EFOFEX>

(iii) Over the same distance, doubling the speed causes time to halve.

(iv) If the time of travel is constant then tripling the speed will triple the distance.

b) <EFOFEX>
id:fxe{55edcf08-a0eb-463b-b119-64898fda6803}
FXGP:DP-QM9C5K9
FXData:

</EFOFEX>

c) <EFOFEX>
id:fxe{8f39a9e9-dcab-449b-80eb-5700759f57d7}
FXGP:DP-Y6XFG5Y
FXData:

</EFOFEX>