**Noteguide for Orbit problems (Videos 5F) Name**

Use  or 

G = 6.67 x 10-11 Nm2/kg2

These come from these formulas:

  

Example 1 - What is the velocity of orbit 250 miles above the earth?

r = 6.38x106 m + (250 mi)(1609 m/mi) = 6782250 m, me = 5.97 x 1024 kg

Example 2 - What is the radius of a geosynchronous orbit?

T = 23:56:04 = 23(3600) + 56(60) + 4 = 86164 s, me = 5.97 x 1024 kg

Fill in the Solutions: **(This side is optional)**

|  |  |
| --- | --- |
| **Formula:** | **Calculator:** |
| v = |  |
| mc = |  |
| r = |  |

|  |  |
| --- | --- |
| **Formula:** | **Calculator:** |
| T = |  |
| mc = |  |
| r = |  |