The table shows bundles along with an indifference curve for two goods X and Y :
x:012345678910
Y:30 2317128531.20 .50
Calculate the MRS at each point

| X | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Y | 30 | 23 | 17 | 12 | 8 | 5 | 3 | 2 | 1 | 0.5 | 0 |
| $\mathrm{MRSx}, \mathrm{y}$ | - | $(23-$ <br> $30) / 1$ <br> $=-7$ | $(17-$ <br> $23) /(2-$ <br> $1)=-6$ | -5 | -4 | -3 | -2 | -1 | -1 | -0.5 | -0.5 |

When quantity of X increases, quantity of Y must decrease. The $\mathrm{MRS} x y=\Delta \mathrm{Y} / \Delta \mathrm{X}$. So as X increase, the denominator gets bigger and MRS decreases. As $X$ increase, $Y$ decreases and the numerator gets smaller so MRS decreases. Both these effects work so that as $X$ increase MRS decreasing.

Answer provided by https://www.AssignmentExpert.com

