

Name \_\_\_\_\_

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**[06-06-06-T7]**

*Tables*

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*Sorry about the unusual format, but we needed a lot of tables in a hurry. And, though you have not seen it before in class, this would be a pretty common format for a table.*

■ **A. Each table is written x left, y right. Express y as a function of x.**

[1]

$$Out[2]= \begin{pmatrix} 0 & 0 \\ 4 & 12 \\ 8 & 24 \\ 12 & 36 \\ 16 & 48 \end{pmatrix}$$

The above means same as 

x	0	4	8	12	16
y	0	12	24	36	48

[2]

$$Out[7]= \begin{pmatrix} -5 & -\frac{2}{5} \\ -2 & -1 \\ 1 & 2 \\ 4 & \frac{1}{2} \end{pmatrix}$$

[3]

$$Out[8]= \begin{pmatrix} -5 & 2 \\ -2 & \frac{4}{5} \\ 1 & -\frac{2}{5} \\ 4 & -\frac{8}{5} \end{pmatrix}$$

[4]

$$Out[10]= \begin{pmatrix} -5 & -\frac{25}{2} \\ -2 & -5 \\ 1 & \frac{5}{2} \\ 4 & 10 \end{pmatrix}$$

[5]

$$\text{Out}[11]=\begin{pmatrix} -5 & -1 \\ -2 & -\frac{5}{2} \\ 1 & 5 \\ 4 & \frac{5}{4} \end{pmatrix}$$

[6]

$$\text{Out}[12]=\begin{pmatrix} -5 & \frac{1}{5} \\ -2 & \frac{1}{2} \\ 1 & -1 \\ 4 & -\frac{1}{4} \end{pmatrix}$$

[7]

$$\text{Out}[13]=\begin{pmatrix} -4 & \frac{3}{4} \\ -1 & 3 \\ 2 & -\frac{3}{2} \\ 5 & -\frac{3}{5} \end{pmatrix}$$

## Answers

### Tables

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#### ■ A. Each table is written x left, y right

`In[2]:= Table[{x, 3 x}, {x, 0, 18, 4}] y = 3 x`

[1]

$$\text{Out[2]} = \begin{pmatrix} 0 & 0 \\ 4 & 12 \\ 8 & 24 \\ 12 & 36 \\ 16 & 48 \end{pmatrix}$$

`In[7]:= Table[{x,  $\frac{2}{x}$ }, {x, -5, 5, 3}]`

[2]

$$\text{Out[7]} = \begin{pmatrix} -5 & -\frac{2}{5} \\ -2 & -1 \\ 1 & 2 \\ 4 & \frac{1}{2} \end{pmatrix}$$

[3]

`In[8]:= Table[{x,  $-\frac{2}{5} x$ }, {x, -5, 5, 3}]`

$$\text{Out[8]} = \begin{pmatrix} -5 & 2 \\ -2 & \frac{4}{5} \\ 1 & -\frac{2}{5} \\ 4 & -\frac{8}{5} \end{pmatrix}$$

[4]

`In[10]:= Table[{x,  $\frac{5}{2} x$ }, {x, -5, 5, 3}]`

$$\text{Out[10]} = \begin{pmatrix} -5 & -\frac{25}{2} \\ -2 & -5 \\ 1 & \frac{5}{2} \\ 4 & 10 \end{pmatrix}$$

[5]

$In[11]:= \text{Table}\left[\left\{x, \frac{5}{x}\right\}, \{x, -5, 5, 3\}\right]$

$Out[11]= \begin{pmatrix} -5 & -1 \\ -2 & -\frac{5}{2} \\ 1 & 5 \\ 4 & \frac{5}{4} \end{pmatrix}$

[6]

$In[12]:= \text{Table}\left[\left\{x, \frac{-1}{x}\right\}, \{x, -5, 5, 3\}\right]$

$Out[12]= \begin{pmatrix} -5 & \frac{1}{5} \\ -2 & \frac{1}{2} \\ 1 & -1 \\ 4 & -\frac{1}{4} \end{pmatrix}$

[7]

$In[13]:= \text{Table}\left[\left\{x, \frac{-3}{x}\right\}, \{x, -4, 5, 3\}\right]$

$Out[13]= \begin{pmatrix} -4 & \frac{3}{4} \\ -1 & 3 \\ 2 & -\frac{3}{2} \\ 5 & -\frac{3}{5} \end{pmatrix}$