|  |  |
| --- | --- |
| http://math.rice.edu/~lanius/images/hex.gif | http://math.rice.edu/~lanius/images/tri.gifhttp://math.rice.edu/~lanius/images/parallel.gif |
| http://math.rice.edu/~lanius/images/trap.gif |

## No Matter What Shape Your Fractions are In

|  |  |
| --- | --- |
| Exploring the Shapes  1. Can you name the 4 geometric figures (the shapes) above? 2. Colour the four shapes on the triangle grid. | http://math.rice.edu/~lanius/images/smtria.gif |

### Determining the Relations

Use the figures you coloured to answer the following questions.

1. How many  http://math.rice.edu/~lanius/images/tri.gif  are in  http://math.rice.edu/~lanius/images/parallel.gif?
2. How many  http://math.rice.edu/~lanius/images/tri.gif are in   http://math.rice.edu/~lanius/images/trap.gif  ?
3. How many  http://math.rice.edu/~lanius/images/trap.gif  are in     ?
4. How many  http://math.rice.edu/~lanius/images/tri.gif are in     ?
5. How many  http://math.rice.edu/~lanius/images/parallel.gif are in     ?
6. How many  http://math.rice.edu/~lanius/images/parallel.gif are in   http://math.rice.edu/~lanius/images/trap.gif  ?

**Based on these relations,**

1. If         = 1,       http://math.rice.edu/~lanius/images/tri.gif  = \_\_\_ .
2. If    http://math.rice.edu/~lanius/images/trap.gif    = 1,       http://math.rice.edu/~lanius/images/tri.gif  = \_\_\_ .
3. If        = 1,    http://math.rice.edu/~lanius/images/trap.gif = \_\_\_ .
4. If    http://math.rice.edu/~lanius/images/trap.gif    = 1,    http://math.rice.edu/~lanius/images/parallel.gif = \_\_\_ .

**Let's do some *really* fun ones.**

1. If     +   http://math.rice.edu/~lanius/images/trap.gif  = 1,   what is   http://math.rice.edu/~lanius/images/tri.gif?
2. If     +   http://math.rice.edu/~lanius/images/parallel.gif  = 1,  what is   http://math.rice.edu/~lanius/images/tri.gif+ http://math.rice.edu/~lanius/images/tri.gif?
3. If   http://math.rice.edu/~lanius/images/tri.gif  +   http://math.rice.edu/~lanius/images/tri.gif  = 1,   what is   + http://math.rice.edu/~lanius/images/parallel.gif?
4. If     +   http://math.rice.edu/~lanius/images/tri.gif  = 1,  what is   http://math.rice.edu/~lanius/images/trap.gif?
5. If     **-**   http://math.rice.edu/~lanius/images/tri.gif  = 1,   what is http://math.rice.edu/~lanius/images/trap.gif+ http://math.rice.edu/~lanius/images/parallel.gif?
6. If   http://math.rice.edu/~lanius/images/tri.gif  +   http://math.rice.edu/~lanius/images/trap.gif  = 2/3,   what is   1?
7. If     +   http://math.rice.edu/~lanius/images/parallel.gif  = 4/5,  what is   2/5?
8. If   http://math.rice.edu/~lanius/images/parallel.gif  +   http://math.rice.edu/~lanius/images/tri.gif  = 3/4,   what is   1/2?
9. If   http://math.rice.edu/~lanius/images/trap.gif  +   http://math.rice.edu/~lanius/images/parallel.gif  = 5/8,  what is   3/4?
10. If     **-**   http://math.rice.edu/~lanius/images/parallel.gif  = 1 1/3,   what is 2/3 ?