

## KUNG - FU FRACTIONS

consider  $4 \cdot \frac{1}{2}$

$$4 \cdot \frac{1}{2} = \frac{4}{1} \cdot \frac{1}{2} = \frac{4 \cdot 1}{1 \cdot 2} = \frac{4}{2} = \frac{2}{1} = \boxed{2}$$

can we calculate this mentally?

$4 \cdot \frac{1}{2}$  We say to ourselves,  
2 goes into 4 TWO  
times and TWO times  
1 is  $\boxed{2}$ .

Now try these:

a)  $8\left(\frac{5}{2}\right)$  — goes into —  
— times and  
— times — is —

$$\text{so } 8\left(\frac{5}{2}\right) =$$

$$\text{b) } 10\left(\frac{5}{2}\right) =$$

$$\text{c) } 9\left(\frac{4}{3}\right) =$$

$$d) 14 \left( \frac{5}{7} \right) =$$

Unfortunately, this method doesn't always work.

Consider  $7 \left( \frac{3}{2} \right)$

2 does not go into 7 evenly, so we must use another method.

$$7 \left( \frac{3}{2} \right) = \frac{7}{1} \cdot \frac{3}{2} = \frac{7 \cdot 3}{1 \cdot 2} = \boxed{\frac{21}{2}}$$

Now consider

$$8 \left( \frac{3}{4} + \frac{3}{2} \right)$$

By the order of operations, we must evaluate the parenthesis first.

But, by Kung-Fu, we can take advantage of the distributive property to make the problem easier

$$8\left(\frac{3}{4} + \frac{3}{2}\right)$$

$$= 8\left(\frac{3}{4}\right) + 8\left(\frac{3}{2}\right)$$

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NOW try these:

a)  $6\left(\frac{2}{3} - \frac{5}{6}\right)$

b)  $12\left(\frac{5}{6} + \frac{3}{4}\right)$

## KUNG-FU FRACTIONS practice problems

1. Evaluate mentally, if possible:

a)  $10 \cdot \frac{3}{2}$

b)  $12 \left( \frac{5}{6} \right)$

c)  $5 \left( \frac{1}{2} \right)$

2. Evaluate:

a)  $14 \left( \frac{3}{2} + \frac{1}{7} \right)$

b)  $9 \left( \frac{4}{3} + \frac{1}{9} \right)$