

NAME: \_\_\_\_\_

*P.I. A.N.5: Solve algebraic problems arising from situations that involve proportionality/direct variation*

Solve:

1.  $\frac{k}{3} = \frac{4}{36}$  [A]  $\frac{1}{3}$  [B]  $\frac{1}{12}$  [C] 12 [D] 3
2.  $\frac{s}{3} = \frac{4}{36}$  [A] 3 [B]  $\frac{1}{3}$  [C] 12 [D]  $\frac{1}{12}$
3. Solve:  $\frac{x}{4} = \frac{3}{4}$  [A] 3 [B]  $1\frac{1}{12}$  [C]  $\frac{5}{12}$  [D]  $\frac{3}{16}$
4. Solve:  $\frac{x}{6} = \frac{3}{4}$  [A]  $\frac{1}{4}$  [B]  $4\frac{1}{2}$  [C]  $1\frac{1}{4}$  [D]  $\frac{1}{8}$

Solve:

5.  $\frac{j}{2} = \frac{3}{12}$
6.  $\frac{d}{3} = \frac{3}{27}$
7.  $\frac{4}{15} = \frac{x}{3}$
8.  $\frac{16}{21} = \frac{x}{9}$
9. Which equation does *not* have the same solution as  $\frac{15}{x} = \frac{8}{45}$ ?  
 [A]  $\frac{45}{x} = \frac{8}{15}$  [B]  $\frac{x}{15} = \frac{45}{8}$  [C]  $\frac{15}{8} = \frac{x}{45}$  [D]  $\frac{8}{15} = \frac{45}{x}$  [E]  $\frac{15}{45} = \frac{x}{8}$
10. Compare the quantities in Column A and Column B.  

<u>Column A</u>	<u>Column B</u>
the solution to $\frac{3}{4} = \frac{8}{x}$	the solution to $\frac{x}{4} = \frac{8}{3}$

[A] The quantity in Column A is greater. [B] The quantity in Column B is greater.  
 [C] The quantities are equal.  
 [D] The relationship cannot be determined from the information given.

[1] A

[2] B

[3] A

[4] B

[5]  $\frac{1}{2}$

[6]  $\frac{1}{3}$

[7]  $\frac{4}{5}$

[8]  $6\frac{6}{7}$

[9] E

[10] C