Connecting Selected Response to Constructed Response

1) Select Yes or No to indicate whether each of these expressions is equivalent to

$$\frac{3}{4} \div \frac{1}{8}$$

A) $\frac{3 \times 8}{4 \times 1}$ ◯Yes ◯No

B) $\frac{3 \times 1}{4 \times 8}$ ◯

C) $\frac{3 \div 1}{4 \div 8}$ No

D) $\frac{6 \div 1}{8 \div 8}$ ◯Yes ◯No

2) Find the quotient using three different methods.

3) Prove that your answer is correct in two different ways.

!47+-$23;28$$$Ö$\frac{3}{4}\frac{1}{8}$ = 6$

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!47+-$23;28$$ $\frac{3}{4}$ Ö $\frac{1}{8}$ = 6$

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We know division means to Ògive outÓ equally or group equally. For example' 6Ö3 = 2 means that if I had 6 candies and 3 friends' I could Ògive outÓ 2 pieces of candy to each of the 3 friends. It could also mean that there are two groups of three in six. So' $\frac{3}{4}$ Ö $\frac{1}{8}$ is really asking how many eighths there are in three ! fourths. I can show (prove) this with pictures and numerically.

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Visual proof #1

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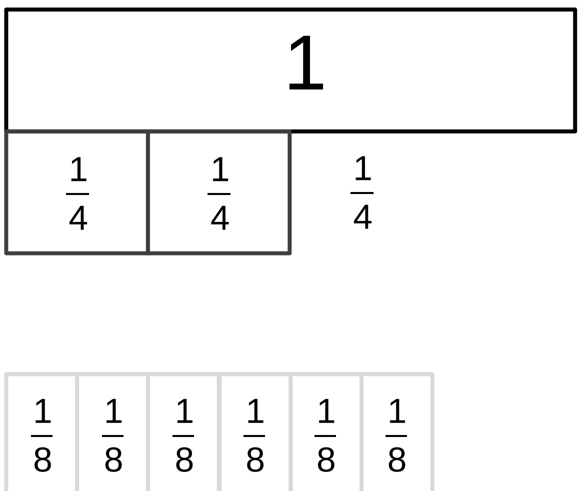

Visual proof #2

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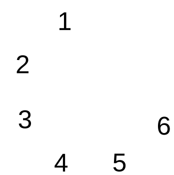

$$\frac{3}{4} = \frac{6}{8}$$

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Numerical proof:

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!!Just like you can show that 6Ö3 = 2 by using multiplication 2¥3 = 6' I will show that $\frac{3}{4}$ Ö $\frac{1}{8}$ = 6 by showing that 6¥ $\frac{1}{8}$ = $\frac{3}{4}$.

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