


Bob has given in his fraction homework and your job is to mark it. For each question, work out if the answer given is right or wrong. If it is wrong, can you describe the misconception?
a) $1 \frac{1}{2} \times 3=3 \frac{3}{6}$
b) $\frac{2}{3} \times \frac{2}{5}=\frac{4}{15}$
c) $\frac{4}{5}+\frac{3}{10}=1 \frac{1}{10}$
d) $4 \times \frac{5}{9}=\frac{20}{36}$
d) $\frac{4}{7} \times \frac{2}{3}=\frac{8}{10}$
e) $\frac{3}{7}-\frac{1}{3}=\frac{2}{21}$
f) $\frac{7}{9} \div \frac{5}{6}=\frac{14}{15}$
g) $\frac{3}{2}+\frac{3}{5}=\frac{3}{7}$

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h) $\frac{3}{4} \times \frac{4}{5}=\frac{3}{5}$

1) $\frac{7}{8}-\frac{1}{4}=\frac{5}{8}$
i) $\frac{1}{2}+\frac{1}{3}=\frac{2}{5}$
j) $2 \frac{1}{3}=\frac{7}{3}$
k) $\frac{9}{8} \div \frac{3}{8}=\frac{3}{8}$
m) $\frac{9}{12} \div 3=\frac{3}{4}$
n) $\frac{3}{4}-\frac{2}{3}=\frac{1}{12}$
o) $\frac{14}{5}=4 \frac{2}{5}$

## practice makes perfect: fraction addition explorations

i) general rule

$$
\begin{aligned}
& \frac{1}{2}+\frac{1}{3} \\
& \frac{1}{10}+\frac{1}{15} \\
& \frac{1}{12}+\frac{1}{18} \\
& \frac{1}{14}+\frac{1}{21} \\
& \frac{1}{20}+\frac{1}{30}
\end{aligned}
$$

what is the pattern for these questions?
what is the pattern in the results?
try to explain the result
ii) addition pyramids

iii) generalising

$$
\begin{aligned}
& \frac{3}{7}+\frac{1}{2} \\
& \frac{5}{11}+\frac{1}{2} \\
& \frac{2}{5}+\frac{1}{2} \\
& \frac{4}{9}+\frac{1}{2}
\end{aligned}
$$

what is the pattern for these questions?
what is the pattern in the results?
test that the rule works and try to explain the result
1)


