Names (pair) _____ Date _____

Cancelling Before Multiplying

Example

Without cancelling the numbers get big: $\frac{5}{4} \times 12 = \frac{5 \times 12}{4} = \frac{60}{4} = 15$

Cancelling: before multiplying, divide a numerator and a denominator by the same number (here by 4):

$$\frac{5}{4} \times 12 = \frac{5 \times \cancel{12}^{3}}{\cancel{4}_{1}} = \frac{15}{1} = 15$$

Remember

We cancel **a numerator with a denominator**, never a numerator with a numerator. The numbers stay small and the answer is already in its simplest form.

1 ON YOUR OWN Cross out and cancel, then work it out.

$\frac{7}{4} \times 8 = \frac{7 \times 8}{4} = \square$

$\frac{5}{3} \times 9 = \frac{5 \times 9}{3} = \square$

$\frac{9}{2} \times 6 = \frac{9 \times 6}{2} = \square$

$\frac{11}{6} \times 12 = \frac{11 \times 12}{6} = \square$

$\frac{7}{5} \times 15 = \frac{7 \times 15}{5} = \square$

$\frac{13}{8} \times 16 = \frac{13 \times 16}{8} = \square$

2 IN PAIRS **Two ways, one answer.** One student multiplies first, the other cancels first. Compare and swap roles.

Product	Multiply first	Cancel first
$\frac{5}{6} \times 18$	$\frac{\square}{\square} = \square$	$\frac{\square}{\square} = \square$
$\frac{7}{12} \times 36$	$\frac{\square}{\square} = \square$	$\frac{\square}{\square} = \square$
$\frac{9}{4} \times 20$	$\frac{\square}{\square} = \square$	$\frac{\square}{\square} = \square$
$\frac{4}{15} \times 45$	$\frac{\square}{\square} = \square$	$\frac{\square}{\square} = \square$

Names (group) _____ Date _____

3 ON YOUR OWN Cancel and multiply. Write the answer as a mixed number.

$\frac{5}{4} \times 6 = \frac{\square}{\square} = \square\frac{\square}{\square}$

$\frac{7}{6} \times 4 = \frac{\square}{\square} = \square\frac{\square}{\square}$

$\frac{9}{8} \times 6 = \frac{\square}{\square} = \square\frac{\square}{\square}$

$\frac{4}{9} \times 6 = \frac{\square}{\square} = \square\frac{\square}{\square}$

4 IN A GROUP **Right or wrong?** Circle. If it is wrong, write the correct calculation.

$\frac{2}{3} \times 9 = \frac{18}{27}$ **right** / **wrong**

Correction: _____

$\frac{5}{4} \times 6 = \frac{15}{2} = 7\frac{1}{2}$ **right** / **wrong**

Correction: _____

$\frac{4}{9} \times 6 = \frac{2}{9} \times 3 = \frac{6}{9}$ **right** / **wrong**

Correction: _____

5 IN A GROUP **Discuss.** Why is it useful to cancel before multiplying? Write two reasons.

_____

_____

★ ON YOUR OWN **Exit card.** $\frac{7}{8} \times 24 = \frac{\square}{\square} = \square$