Worksheet 17

Multiplying Mixed Numbers

1 Use Ravi's and Ruby's methods to multiply mixed numbers.


's method

$$1\frac{1}{4} \times 2$$

$$= 2 + \frac{2}{4}$$

$$= 2\frac{1}{2}$$


's method

$$1\frac{1}{4} \times 2$$

$$= \frac{5}{4} \times 2$$

$$= \frac{10}{4}$$

$$= 2\frac{1}{2}$$

(a) 
's method

$$1\frac{2}{3} \times 3$$

$$= 3 + \frac{6}{3}$$

$$= 5$$


's method

$$1\frac{2}{3} \times 3$$

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

$$= \frac{15}{3}$$

$$= 5$$

(b)  's method

$3\frac{1}{2} \times 3$

$= 9 + \frac{3}{2}$

$= 10\frac{1}{2}$

 's method

$3\frac{1}{2} \times 3$

$= \frac{7}{2} \times 3$

$= \frac{21}{2}$

$= 10\frac{1}{2}$

2 12 traffic cones are placed along a street. Each cone is $3\frac{1}{2}$ m from the next. What is the distance between the first cone and the last?

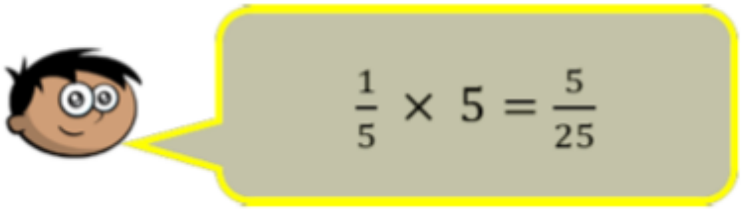
$11 \times 3\frac{1}{2}$ m

$= 33 + 5\frac{1}{2}$

$= 38\frac{1}{2}$ m

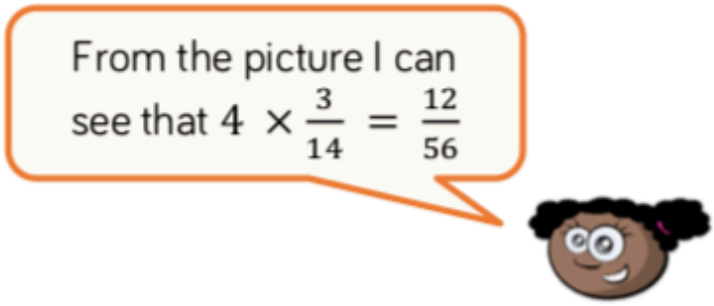
CHALLENGE

Amir is multiplying fractions by a whole number.



Can you explain his mistake?

Whitney has calculated $4 \times \frac{3}{14}$

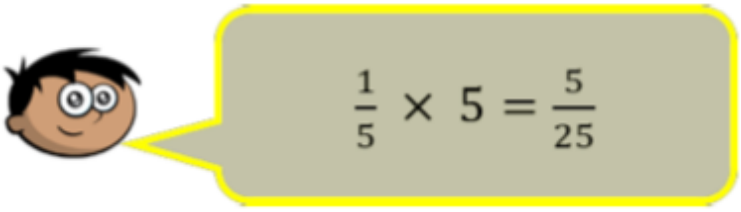


Do you agree?

Explain why.

Answers below:

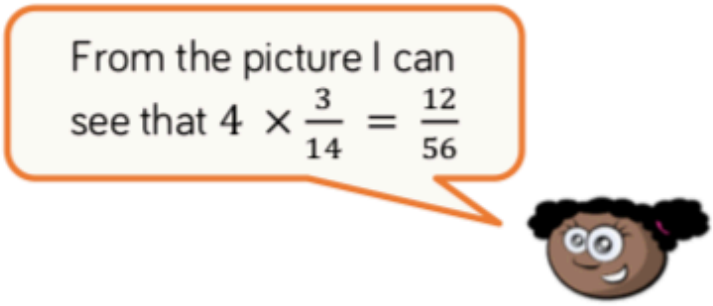
Amir is multiplying fractions by a whole number.



Can you explain his mistake?

Amir has multiplied both the numerator and the denominator so he has found an equivalent fraction. Encourage children to draw models to represent this correctly.

Whitney has calculated $4 \times \frac{3}{14}$



Do you agree?

Explain why.

Possible answer:

I disagree. Whitney has shaded 12 fourteenths. She has counted all of the boxes to give her the denominator when it is not needed. The answer should be $\frac{12}{14}$ or $\frac{6}{7}$