

Solving Mixed Number Differences with Bar Diagrams

Name: _____

Date: _____

Solve the following word problems by filling in the bar diagrams below each exercise.

1. Sylvia the flower lady needed $52 \frac{1}{2}$ yards of mulch for her garden. But she only had $28 \frac{4}{5}$ yards. How much more mulch would Sylvia need to buy for her garden?

$51 \frac{15}{10} - 28 \frac{8}{10} = 23 \frac{7}{10}$ yards	$28 \frac{4}{5} = 28 \frac{8}{10}$?
$52 \frac{1}{2} = 51 \frac{15}{10}$	

Sylvia would need to buy $23 \frac{7}{10}$ more yards of mulch for her garden.

2. Peter's hydroponics planters pipe $923 \frac{1}{8}$ quarts of water a day in his new hothouse. But Peter's petunias, pansies, and peonies need $389 \frac{2}{9}$ less quarts of water to thrive in their new home. How much water do Peter's plants require?

$921 \frac{81}{72} - 389 \frac{16}{72} = 532 \frac{65}{72}$ quarts	$389 \frac{16}{72}$?
$922 \frac{65}{72}$	

Peter's plants require $532 \frac{65}{72}$ quarts of water.

3. Harry's Humongous Home for Animals, needed $78 \frac{3}{4}$ hectares to house herds of hamsters, hedgehogs, and hyenas. But Harry humbly had $41 \frac{2}{3}$ hectares. How many more hectares would Harry need for his Humongous Home for Animals?

$41 \frac{2}{3}$	$37 \frac{1}{12}$ hectares ?
$78 \frac{3}{4}$ hectares	

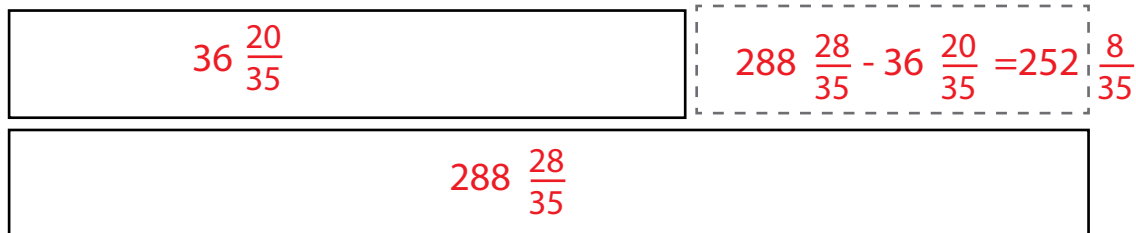
Harry needs $37 \frac{1}{12}$ more hectares for his Humongous Home for Animals.

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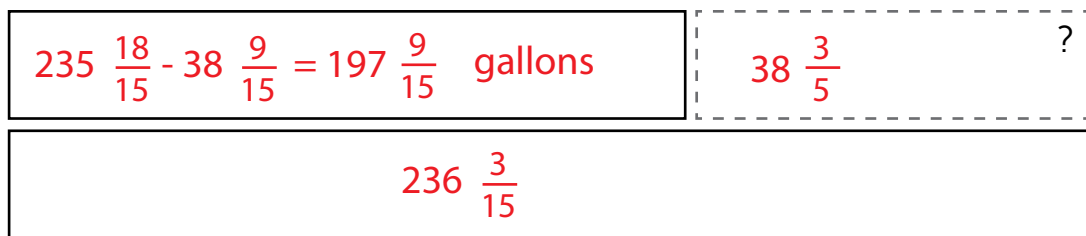
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4. Freddy Fontaine's Farm for Fertilizer ships $36 \frac{4}{7}$ pounds of fertilizer per pack. Fantasia's Flowers requested $288 \frac{4}{5}$ pounds of fertilizer for her foxgloves, freesias, and forsythias. How much more fertilizer than a pound would Freddy need to fulfill Fantasia's order?



Freddy needs $252 \frac{8}{35}$ more pounds of fertilizer to fulfill Fantasia's order.

5. After an earthquake, Peter's hydroponic planters got punctured and wasted $236 \frac{3}{15}$ gallons of water a day. Peter's accountant, Carl, calculated the cost to be a loss of $38 \frac{3}{5}$ gallons by noon. How much more water was wasted in the day?



197 $\frac{9}{15}$ gallons more water was wasted in the day.

