Name _____

Practice Video Tools Games

Additional Practice 7-9

Use Models to Subtract Mixed Numbers

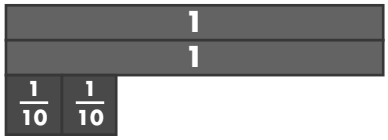
Another Look!

Draw a model to find $2\frac{1}{5} - 1\frac{3}{10}$.

Remember to check that your answer makes sense.

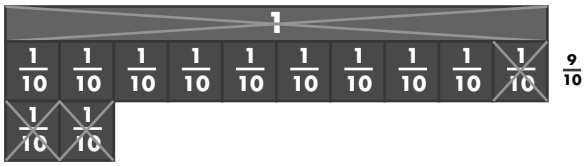
Step 1

Rename the fractions with a common denominator. Use the common denominator to model the number you are subtracting from, $2\frac{1}{5}$ or $2\frac{2}{10}$.



Step 2

Rename $2\frac{2}{10}$ as $1\frac{12}{10}$. Cross out one whole and $\frac{3}{10}$ to show subtracting $1\frac{3}{10}$.



Write the parts of the model that are left as a fraction or mixed number.

So, $2\frac{1}{5} - 1\frac{3}{10} = \frac{9}{10}$.

In **1–12**, find each difference.

1. $6\frac{1}{4} - 3\frac{5}{8}$ $2\frac{5}{8}$

2. $4 - 1\frac{1}{2}$ $2\frac{1}{2}$

3. $5\frac{1}{3} - 3\frac{1}{6}$ $2\frac{1}{6}$

4. $7\frac{2}{5} - 4\frac{7}{10}$ $2\frac{7}{10}$

5. $12\frac{3}{4} - 11\frac{7}{8}$ $\frac{7}{8}$

6. $9\frac{3}{10} - 2\frac{2}{5}$ $6\frac{9}{10}$

7. $8\frac{1}{4} - 2\frac{5}{12}$ $5\frac{5}{6}$

8. $12\frac{1}{3} - 5\frac{4}{6}$ $6\frac{2}{3}$

9. $9\frac{1}{2} - 6\frac{9}{10}$ $2\frac{6}{10}$ or $2\frac{3}{5}$

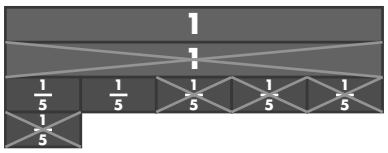
10. $3\frac{4}{5} - 1\frac{4}{10}$ $2\frac{2}{5}$

11. $7\frac{1}{4} - 3\frac{5}{8}$ $3\frac{5}{8}$

12. $10\frac{1}{3} - 7\frac{5}{9}$ $2\frac{7}{9}$

13. Use the model to find the difference.

$3\frac{1}{5} - 1\frac{4}{5}$ $1\frac{2}{5}$



14. Micah's rain gauge showed that $9\frac{1}{2}$ centimeters of rain fell last month. This month, the rain gauge measured $10\frac{3}{10}$ centimeters. How many more centimeters of rain fell this month?

$\frac{8}{10}$ or $\frac{4}{5}$ cm

15. Higher Order Thinking Suppose you are finding $8\frac{3}{10} - 6\frac{4}{5}$. Do you need to rename $8\frac{3}{10}$? If so, explain how you rename it to subtract. Then find the difference.

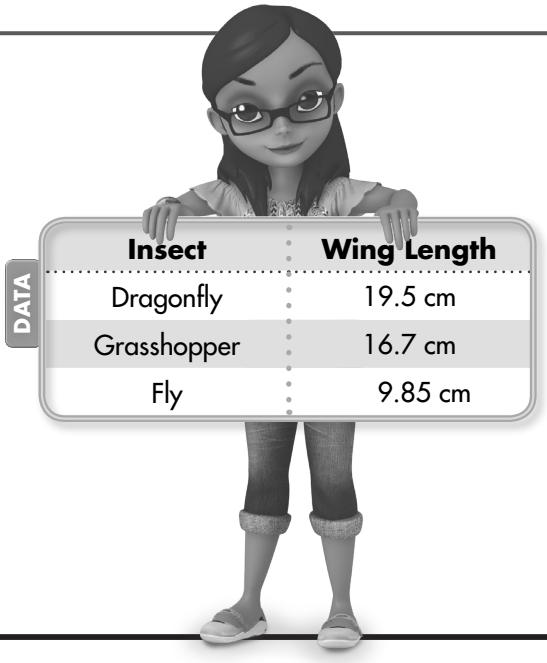
Yes; Sample answer: Rename $\frac{4}{5}$ as $\frac{8}{10}$. $\frac{3}{10} < \frac{8}{10}$, so rename 1 whole from $8\frac{3}{10}$ as $\frac{10}{10}$. So $8\frac{3}{10} = 7\frac{13}{10}$. $7\frac{13}{10} - 6\frac{8}{10} = 1\frac{5}{10}$ or $1\frac{1}{2}$

16. Critique Reasoning Danny said 12.309 rounded to the nearest tenth is 12.4. Is Danny correct? Explain.

No; To round to the nearest tenth, look at the digit in the hundredths place. Because $0 < 5$, do not change the digit in the tenths place. 12.309 rounded to the nearest tenth is 12.3.

17. enVision® STEM Fossils show that insects were much larger around 300 million years ago than they are today. The table at the right shows some of the wing lengths found in fossils. How much longer was the wing length of the dragonfly than the wing length of the fly?

9.65 cm



DATA

Insect	Wing Length
Dragonfly	19.5 cm
Grasshopper	16.7 cm
Fly	9.85 cm

Assessment Practice

18. What is the missing fraction in the following equation?

$1\frac{1}{2} - \boxed{\frac{3}{4}} = \frac{3}{4}$

19. What is the missing number in the following equation?

$15\frac{3}{\boxed{4}} - 13\frac{7}{8} = 1\frac{7}{8}$