

Cindy's Cats

T1

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\underline{\frac{7}{8}} \quad \checkmark$$

Show how you figured this out.

$$\begin{array}{r} \frac{1}{2} + \frac{1}{8} + \frac{1}{4} \\ \frac{4}{8} + \frac{1}{8} + \frac{2}{8} \\ \frac{7}{8} \end{array} \quad \checkmark$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

$$\underline{\text{Suzi}} \quad \checkmark$$

How much longer does it sleep each day?

$$\underline{\frac{1}{10}} \quad \checkmark$$

Show how you figured this out.

$$\frac{6}{10} = \frac{3}{5} \quad \frac{7}{10} \quad \checkmark$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\begin{array}{r} \cancel{\frac{1}{3}} \\ \frac{4}{12} \end{array} \quad \begin{array}{r} \cancel{\frac{1}{6}} \\ \frac{2}{12} \end{array} \quad \frac{5}{12} \quad \begin{array}{r} 5 \\ 2 \\ 4 \\ 11 \end{array} \quad \begin{array}{r} 11 \\ 12 \end{array} \quad \begin{array}{r} 12 \\ 12 \\ 1 \end{array}$$

$$\frac{1}{12} \checkmark$$



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

Explain how you figured it out.

First, I added $\frac{1}{4}$ and $\frac{3}{10}$. Since it is difficult to do this, I made the denominator 20, and when I added it up, I got $\frac{11}{20}$. $\frac{11}{20}$ equals $\frac{55}{100}$, so I got 45 when

$$45 \text{ times} \checkmark$$

$$\frac{11}{20} = \frac{55}{100} \quad \begin{array}{r} \cancel{\frac{1}{4}} \\ \frac{5}{20} \end{array} \quad \begin{array}{r} \cancel{\frac{3}{10}} \\ \frac{6}{20} \end{array} = \frac{11}{20} \quad \begin{array}{r} \cancel{\frac{3}{10}} \\ \frac{6}{20} \end{array} \quad \begin{array}{r} \cancel{\frac{1}{4}} \\ \frac{5}{20} \end{array} \quad \begin{array}{r} 100 \\ -55 \\ 45 \end{array}$$

I subtracted 55 from 100.



Cindy's Cats

T2

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

Show how you figured this out.

$$\begin{array}{r} 3 \\ \hline 14 \end{array} \times 0$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

How much longer does it sleep each day?

Show how you figured this out.

$$\begin{array}{r} \text{Suzi} \quad \checkmark \\ \hline \frac{7}{10} \end{array}$$

$$\frac{3}{5} = \frac{12}{20}$$

$$\frac{7}{10} = \frac{14}{20}$$

$$\frac{14}{20} - \frac{12}{20} = \frac{2}{20} \text{ or } \frac{1}{10} \quad \checkmark$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{12} \quad \checkmark \quad |$$

$$\frac{1}{3} + \frac{1}{6} + \frac{5}{12} = \frac{11}{12} = \frac{1}{12} \text{ (left)}$$

$$\checkmark \quad |$$



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

Explain how you figured it out.

$$45 \quad \checkmark \quad |$$

$$\frac{1}{4} = 25 + \frac{3}{10} = 30 + 25 = 55 \quad 100 - 55 = 45 \quad \checkmark \quad |$$

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Cindy's Cats

T3

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\frac{7}{8} \quad \checkmark \quad 1$$

Show how you figured this out.

^

0

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

$$\frac{7}{10} \quad \checkmark \quad 1$$

How much longer does it sleep each day?

Show how you figured this out.

^

0

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{12} \quad \checkmark \quad 1$$

1 0

4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.



Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

$$\frac{9}{20} \quad \checkmark \quad 0$$

Explain how you figured it out.

I added the fractions after
I found a fraction whole they
both add up to. ✓ (1)

Cindy's Cats

T4

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\underline{\frac{7}{8}} \quad \checkmark$$

Show how you figured this out.

$$\frac{1}{2}, \frac{1}{8}, \frac{1}{4} = \frac{4}{8}, \frac{1}{8}, \frac{2}{8}$$

$$\begin{array}{r} \frac{4}{8} \\ + \frac{1}{8} \\ \frac{2}{8} \\ \hline \frac{7}{8} \end{array} \quad \checkmark$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

$$\underline{\text{SUZI}} \quad \checkmark$$
$$\underline{\frac{1}{10}}$$

How much longer does it sleep each day?

Show how you figured this out.

$$\frac{3}{5} \text{ and } \frac{7}{10} = \frac{6}{10} \text{ and } \frac{7}{10}$$

$$\begin{array}{r} \frac{7}{10} \\ - \frac{6}{10} \\ \hline \frac{1}{10} \end{array} \quad \checkmark$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

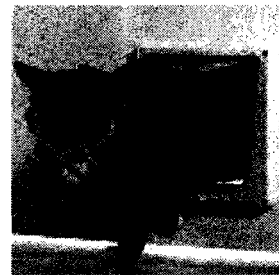
Show how you figured it out.

$$\frac{11}{12} \times 0$$

$$\frac{1}{3}, \frac{5}{12} \text{ and } \frac{1}{6} = \frac{4}{12}, \frac{5}{12} \text{ and } \frac{2}{12}$$

$$\begin{array}{r} \frac{4}{12} \\ + \frac{5}{12} \\ \hline \frac{9}{12} \\ \hline \frac{11}{12} \end{array}$$

✓ (11)



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

$$\frac{1}{4} = 25\% \quad \frac{3}{10} = 30\%$$

How many times did Suzi use the cat door?

45 times

Explain how you figured it out.

I changed Sammy and Tommy's fractions into percents added them together, then I subtracted from that from 100 and that was my answer.

Cindy's Cats

T5

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

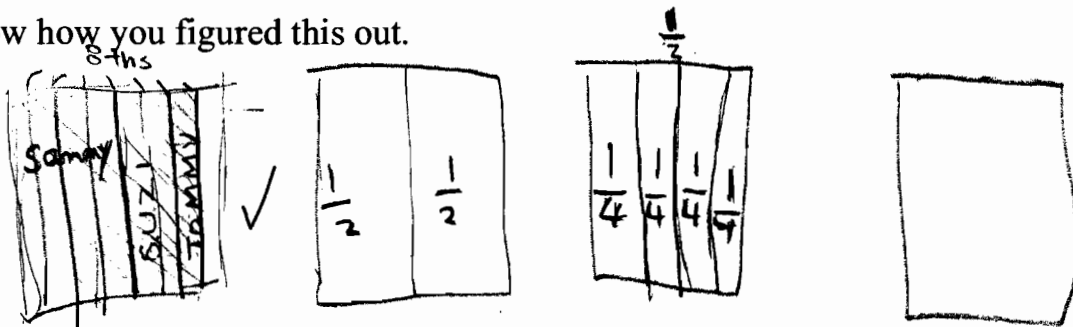
Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\frac{7}{8}$$

Show how you figured this out.

$\frac{1}{2}$ of a half is
 $\frac{1}{4}$ of a fourth is $\frac{1}{8}$



2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

$$\begin{array}{r} \text{Suzi} \\ \hline .7 \end{array}$$

How much longer does it sleep each day?

Show how you figured this out.

$$\frac{3}{5} = .6 \quad \frac{7}{10} = .7$$

$$\begin{array}{r} .7 \\ - .6 \\ \hline .1 \end{array}$$

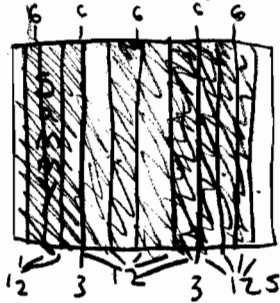
3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.



3 = thirds
6 = sixths
12 = twelfths

$$\frac{11}{12} \times 0$$

✓ (1)



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

.27 of the times

Explain how you figured it out.

$$\frac{1}{4} = .25$$

$$\frac{3}{10} = .3$$

$$.25 + .3 = .28 \quad 1.0 - .28 = .27$$

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Cindy's Cats

S1

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{4}{28}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{2}{8}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

Show how you figured this out.

$\frac{7}{8}$ of a box ✓

$$\begin{array}{r} .125 \\ .500 \\ .250 \\ \hline .875 \end{array} \text{ which is } = \frac{7}{8} \checkmark$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

How much longer does it sleep each day?

Show how you figured this out.

Suzi
1 0

$\frac{3}{5}$ is 60% with $\frac{7}{10}$ is 70% ✓

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{4}{10}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

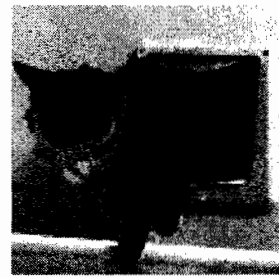
Suzi always drinks $\frac{2}{10}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{12} \quad \checkmark$$

I figured out what the fractions equal. \checkmark
 $\frac{1}{12}$ was the total of the milk carton out of all the kittens, so $\frac{1}{12}$ is left over of the carton.



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

Explain how you figured it out.

$\frac{1}{4}$ of the times out of 100 is 25 times Sammy used. $\frac{3}{10}$ of the times is 30 times Tommy used. So add that together it equals 55 times for both, subtract is the next step $100 - 55 = 45$, which is how many times Suzi went out the cat door. \checkmark

(7)

8

Cindy's Cats

S2

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\frac{7}{8} \quad \checkmark \quad |$$

Show how you figured this out.

$$\frac{1}{2} = \frac{4}{8} + \frac{1}{8} + \frac{1}{4} = \frac{2}{8} \quad \checkmark \quad |$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

$$\frac{\text{Suzi}}{10} \quad \checkmark \quad |$$
$$\frac{1}{10}$$

How much longer does it sleep each day?

Show how you figured this out.

$$\frac{3}{5} = \frac{6}{10} + \frac{7}{10} = 1 \frac{1}{10} \quad \times \quad |$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{12} \quad \checkmark \quad 1$$

$$\frac{1}{3} = \frac{4}{12} + \frac{1}{6} = \frac{2}{12} + \frac{5}{12} = \frac{11}{12} \quad \checkmark \quad 1$$

4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.



Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

$$45\% \quad \checkmark \quad 0$$

Explain how you figured it out.

I divided 1 by 4 and got 25%, and divided 3 by 10 and got 30%. $\checkmark (1)$

6

8

Cindy's Cats

S3

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

Show how you figured this out.

$$\frac{1}{2} + \frac{1}{8} + \frac{1}{4} = \frac{4}{8} + \frac{1}{8} + \frac{2}{8} = \frac{7}{8}$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

How much longer does it sleep each day?

Show how you figured this out.

Suzi $\frac{7}{10}$ of the day

$$\frac{3}{5} \times 2 = \frac{6}{10} < \frac{7}{10}$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{12} \quad \checkmark \quad 1$$

1.

$$\frac{1}{3} = \frac{4}{12}$$

$$\frac{1}{6} = \frac{2}{12}$$

$$\frac{5}{12} = \frac{5}{12}$$

2.

$$\frac{4}{12} + \frac{2}{12} + \frac{5}{12} = \frac{11}{12}$$

$$\checkmark \quad 1$$



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

$$45 \quad \checkmark \quad 1$$

Explain how you figured it out.

Sammy jumped 25 times, Tommy jumped 30 times. $25 + 30 = 55$ $100 - 55 = 45$ $\checkmark \quad 1$



Cindy's Cats

S4

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\frac{7}{8} \quad \checkmark$$

Show how you figured this out.

I evened out the denominators:

$$\frac{1}{2} = \frac{4}{8} \quad \frac{1}{8} = \frac{1}{8} \quad \frac{1}{4} = \frac{2}{8} \quad \text{all added together is:}$$
$$\frac{4}{8} + \frac{1}{8} + \frac{2}{8} = \frac{7}{8} \quad \checkmark$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

Suzi \checkmark
 $\frac{1}{10}$ of a day

How much longer does it sleep each day?

Show how you figured this out.

I made the denominators equal:

$$\frac{3}{5} = \frac{6}{10} < \frac{7}{10} \quad \checkmark$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

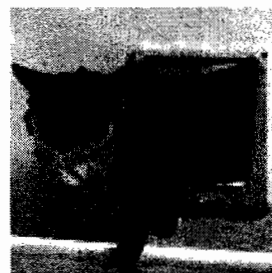
Show how you figured it out.

$$\frac{1}{3} = \frac{4}{12} \quad \frac{1}{6} = \frac{2}{12} \quad \frac{5}{12} = \frac{5}{12} \quad \times$$

$$\frac{\frac{2}{12} = \frac{1}{6}}{\phantom{\frac{2}{12} = \frac{1}{6}}} \quad \begin{array}{r} 0 \\ \times \\ 0 \end{array}$$

4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.



Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

Explain how you figured it out.

I made $\frac{1}{4}$ and $\frac{3}{10}$ have equal denominators (40).
 Then, I added them up ($\frac{10}{40} + \frac{12}{40} = \frac{22}{40}$). I subtracted
 22 out of 40 and got 18. I put the 18 over
 the 40 to create $\frac{18}{40}$. ✓ (11)

$$\frac{3}{10} \quad \frac{12}{40}$$

$$\frac{1}{4} \quad \frac{10}{40}$$

$$\frac{18}{40}$$

$$\frac{18}{40} \quad 1 \quad 0$$



Cindy's Cats

S5

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\underline{\frac{7}{8}} \quad \checkmark$$

Show how you figured this out.

$$\frac{1}{2} \text{ of } 8 = \frac{4}{8} + \frac{1}{4} \text{ of } 8 = \frac{2}{8}$$

$$\frac{4}{8} + \frac{2}{8} + \frac{1}{8} = \frac{7}{8} \quad \checkmark$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

Suzi \checkmark

How much longer does it sleep each day?

$\frac{1}{10}$ \checkmark

Show how you figured this out.

$$\frac{3}{5} \cdot 2 = \frac{6}{10} \text{ is less } \frac{7}{10} \text{ than } \frac{7}{10}$$

$$\frac{7}{10} - \frac{6}{10} = \frac{1}{10}$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

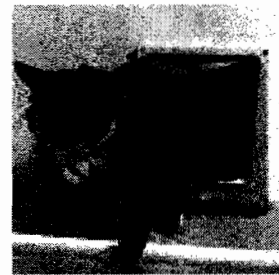
Show how you figured it out.

$$\frac{1}{12} \quad \checkmark$$

$$\frac{1}{3} \cdot 4 = \frac{4}{12}$$

$$\frac{1}{6} \cdot 2 = \frac{2}{12}$$

$$\frac{4}{12} + \frac{2}{12} + \frac{5}{12} = \frac{11}{12} \quad \checkmark$$



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times. \checkmark

How many times did Suzi use the cat door?

45 times

Explain how you figured it out.

$$\frac{1}{4} \text{ of } 100 \text{ is } 25 \quad \frac{3}{10} \text{ of } 100 \text{ is } 30 \quad \checkmark$$

$$25 + 30 = 55 \quad 100 - 55 = 45$$

8

8

Cindy's Cats

S6

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\frac{7}{8} \quad \checkmark$$

Show how you figured this out.

$$\frac{1}{2} = \frac{4}{8} \quad \frac{1}{8} = \frac{1}{8} \quad \frac{1}{4} = \frac{2}{8}$$

$$\frac{4}{8} + \frac{1}{8} + \frac{2}{8} = \frac{7}{8}$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

Suzi \checkmark
 $\frac{1}{10}$ of the day

How much longer does it sleep each day?

Show how you figured this out.

Tommy Suzi

$$\frac{6}{10} - \frac{7}{10} = \frac{1}{10}$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

$\frac{1}{12}$ ✓

Show how you figured it out.

$$\frac{4}{12} + \frac{5}{12} + \frac{2}{12} = \frac{11}{12}$$

✓

4. Cindy's cats love to jump in and out of their cat door.



Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

$\frac{9}{10}$ × 0

Explain how you figured it out.

I made $\frac{1}{4} = \frac{25}{100}$ and $\frac{3}{10} = \frac{30}{100}$ then I added them up and
subtract it from 100.

Cindy's Cats

S7

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

Show how you figured this out.

$$\frac{100}{50}$$

$$\frac{100}{12.5}$$

$$\frac{100}{25}$$

$$\frac{87.5}{100}$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

How much longer does it sleep each day?

Show how you figured this out.

$$\frac{\text{Suzie}}{\frac{7}{10}}$$

$$\frac{\frac{3}{5}}{\frac{7}{10}} \rightarrow \frac{6}{10}$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{8.5}{100} \checkmark$$

$$\frac{100}{33.3} \quad \frac{100}{41.6} \quad \frac{100}{16.6} \checkmark$$

4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.



Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

45 times ✓

Explain how you figured it out.

I found the two fractions added
them up and minused it out of
one hundred. ✓

$$S \frac{1}{25} \quad T \frac{1}{30}$$

8

8

Cindy's Cats

S8

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day? They eat all of it. ^{x 0}

Show how you figured this out.

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

$$\frac{1}{8} \times 8 = \frac{8}{8} = 1$$

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

✓

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

How much longer does it sleep each day?

Show how you figured this out.

compare

$$\frac{3}{5} \times 2 = \frac{6}{10}$$

$$\frac{7}{10}$$

$$\frac{6}{10} \quad \left(\frac{7}{10} \right) \rightarrow \text{Suzi}$$

✓

Suzi

By $\frac{1}{10}$

✓

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{4}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{2}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{12} \quad \checkmark \quad |$$

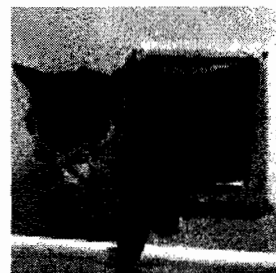
$$\frac{4}{12} + \frac{2}{12} + \frac{5}{12} = \frac{11}{12}$$

$$12 - 11 = \frac{1}{2}$$

B.O.D. ✓ |

4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.



Sammy used it for $\frac{5}{4}$ of the times and Tommy used it for $\frac{6}{10}$ of the times.

How many times did Suzi use the cat door?

Explain how you figured it out.

she used it $\frac{9}{20}$ times. ✓

I turned Sammy's time to both of their L.C.M.,
 doing the bottom and top, and added $\frac{5}{20}$ and
 $\frac{6}{20}$ up (their time) and got $11/20$, and
 $20 - 11 = 9$, so $\frac{9}{20}$ is Suzi. ✓ (1)



Cindy's Cats

S9

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

Show how you figured this out.

$$\frac{1}{2} \quad \frac{1}{4} \quad \frac{1}{8}$$
$$\frac{4}{8} + \frac{1}{8} + \frac{2}{8} = \frac{7}{8}$$

$$\frac{7}{8}$$

Handwritten work showing the sum of fractions $\frac{1}{2} + \frac{1}{8} + \frac{1}{4} = \frac{7}{8}$ with arrows indicating the conversion of $\frac{1}{2}$ to $\frac{4}{8}$ and $\frac{1}{4}$ to $\frac{2}{8}$.

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

How much longer does it sleep each day?

Show how you figured this out.

$$\frac{6}{10} \quad \frac{7}{10}$$

convert & compare

Suzi ✓
by $\frac{1}{10}$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\overset{1/3}{4/12} + \overset{1/6}{2/12} + 5/12 = 11/12$$

$$\frac{12}{12} - \frac{11}{12} = \frac{1}{12}$$

1/12 ✓ 1

✓ 1



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used ~~400~~ times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

How many times did Suzi use the cat door?

Explain how you figured it out.

I change 1/4 into a similar fraction, the 100ths
and I added how many times Sammy & Tommy used the
cat door and subtracted that from 100 & then I get
how many times Suzi used the cat door.

45 times ✓ 1

✓ 1

$$25/100 \quad 30/100$$

$$\begin{array}{r} 25 \\ 30 \\ \hline 55 \end{array} \quad \begin{array}{r} 9 \\ 100 \\ 55 \\ \hline 45 \end{array}$$

8 8

Cindy's Cats

S10

This problem gives you the chance to:

- solve fraction problems in a practical context

Cindy has 3 cats: Sammy, Tommy and Suzi.



1. Cindy feeds them on Cat Crunchies.

Each day Sammy eats $\frac{1}{2}$ of the box, Tommy eats $\frac{1}{8}$ of the box and Suzi eats $\frac{1}{4}$ of the box.

What fraction of a whole box do the cats eat, in all, each day?

$$\frac{7}{8} \quad \checkmark$$

Show how you figured this out.

$$\frac{1}{2} = \frac{4}{8} \quad \frac{1}{4} = \frac{2}{8}$$
$$\frac{4}{8} + \frac{2}{8} + \frac{1}{8} = \frac{7}{8} \quad \checkmark$$

2. Tommy and Suzi spend much of each day sleeping.

Tommy sleeps for $\frac{3}{5}$ of the day and Suzi sleeps for $\frac{7}{10}$ of the day.

Which of the two cats sleeps for longer?

Suzi \checkmark

How much longer does it sleep each day?

Suzi sleeps $\frac{1}{10}$ of the day longer

Show how you figured this out.

$$\frac{3}{5} = \frac{6}{10} \quad \frac{6}{10} < \frac{7}{10}$$
$$\frac{7}{10} - \frac{6}{10} = \frac{1}{10} \quad \checkmark$$

3. Cindy's cats often share a carton of cat milk.

Sammy always drinks $\frac{1}{3}$ of the carton, Tommy always drinks $\frac{5}{12}$ of the carton, and

Suzi always drinks $\frac{1}{6}$ of the carton.

What fraction of the carton of cat milk is left over?

Show how you figured it out.

$$\frac{1}{3} = \frac{4}{12}$$

$$\frac{1}{6} = \frac{2}{12}$$

$$\frac{12}{12} - \frac{9}{12} = \frac{3}{12}$$

$$\frac{4}{12} + \frac{2}{12} + \frac{5}{12} = \frac{11}{12}$$

$\frac{3}{12}$ of the carton



4. Cindy's cats love to jump in and out of their cat door.

Yesterday the cat door was used 100 times by her cats.

Sammy used it for $\frac{1}{4}$ of the times and Tommy used it for $\frac{3}{10}$ of the times.

45 times

How many times did Suzi use the cat door?

Explain how you figured it out.

I made all the fractions equal. Then I add them up. The I did $\frac{100}{100} - \frac{55}{100} = \frac{45}{100}$ and got my answer.

$$\frac{1}{4} = \frac{5}{20}$$

$$\frac{3}{10} = \frac{6}{20}$$

$$\frac{3}{10} = \frac{30}{100} \quad \frac{1}{4} = \frac{25}{100}$$

$$5 + 6 = 11$$

7 8