1 Fill in the bubble next to the correct answer to each question.

a The number on Pencil Puppy’s dog tag has a 6 in the tens place. It has a 4 in the ones place. What is the number on her tag?
   ○ 46  ○ 64  ○ 14  ○ 67

b The number on Pal’s dog tag has a 7 in the tens place. It has a 3 in the ones place. What is the number on Pal’s tag?
   ○ 17  ○ 37  ○ 30  ○ 73

2 Fill in the correct answer.

a Pencil Puppy’s house number has a 3 in the tens place.
   It has a 5 in the ones place.
   What is Pencil Puppy’s house number? _______

b Pal’s house number has a 7 in the ones place.
   It has a 4 in the tens place.
   What is Pal’s house number? _______

3 Pencil Puppy has 43 pencils in her house. Pal has 29 pencils in his house. How many pencils do they have in all? Use numbers, pictures, and/or words to solve the problem and explain your answer.

Pencil Puppy and Pal have _______ pencils in all.

(continued on next page)
4 Add. Use the pictures of base ten pieces to help. The second set of pieces for each problem is hidden, so you will have to draw them or imagine them.

\[
\begin{array}{c}
\text{a} \\
\begin{array}{c}
\text{Tens} \\
36 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
26 \\
\end{array} \\
\end{array}
\begin{array}{c}
\text{b} \\
\begin{array}{c}
\text{Tens} \\
39 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
14 \\
\end{array} \\
\end{array}
\]

\[
\begin{array}{c}
26 \\
+ 26 \\
\hline
52 \\
\end{array}
\begin{array}{c}
14 \\
+ 14 \\
\hline
28 \\
\end{array}
\]

5 When Pencil Puppy does 2-digit addition, she adds the tens first. Next, she adds the ones. Then she adds the two numbers to get the answer. Try her strategy.

\[
\begin{array}{c}
\text{ex} \\
\begin{array}{c}
\text{Tens} \\
3 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
7 \\
\end{array} \\
\end{array}
\begin{array}{c}
\text{Tens} \\
2 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
7 \\
\end{array} \\
\end{array}
\]

\[
\begin{array}{c}
30 + 20 = 50 \\
7 + 7 = 14 \\
50 + 14 = 64 \\
\end{array}
\]

\[
\begin{array}{c}
\text{a} \\
\begin{array}{c}
\text{Tens} \\
4 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
8 \\
\end{array} \\
\end{array}
\begin{array}{c}
\text{Tens} \\
3 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
4 \\
\end{array} \\
\end{array}
\]

\[
\begin{array}{c}
40 + 30 = ____ \\
8 + 4 = ____ \\
70 + 12 = ____ \\
\end{array}
\begin{array}{c}
50 + 20 = ____ \\
8 + 8 = ____ \\
70 + 16 = ____ \\
\end{array}
\]

\[
\begin{array}{c}
\text{c} \\
\begin{array}{c}
\text{Tens} \\
2 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
5 \\
\end{array} \\
\end{array}
\begin{array}{c}
\text{Tens} \\
6 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
9 \\
\end{array} \\
\end{array}
\]

\[
\begin{array}{c}
20 + 60 = ____ \\
5 + 9 = ____ \\
____ + ____ = ____ \\
\end{array}
\begin{array}{c}
30 + 50 = ____ \\
4 + 9 = ____ \\
____ + ____ = ____ \\
\end{array}
\]

\[
\begin{array}{c}
\text{d} \\
\begin{array}{c}
\text{Tens} \\
3 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
4 \\
\end{array} \\
\end{array}
\begin{array}{c}
\text{Tens} \\
5 \\
\end{array} \\
\begin{array}{c}
\text{Ones} \\
9 \\
\end{array} \\
\end{array}
\]

\[
\begin{array}{c}
40 + 40 = ____ \\
5 + 6 = ____ \\
____ + ____ = ____ \\
\end{array}
\begin{array}{c}
40 + 40 = ____ \\
5 + 6 = ____ \\
____ + ____ = ____ \\
\end{array}
\]
Subtraction & Graphing Practice  page 1 of 2

DJ Hopper makes hops on the number line to solve 2-digit subtraction problems.

Here’s how he solved 53 – 26:

- Start at 26.
- Hop up to 30.
- Now hop up to 50.
- Then hop up to 53 and add up all your hops. That tells how far it is from 26 to 53.

\[ 4 + 20 + 3 = 27 \]

so \( 53 - 26 = 27 \)

1 Try DJ’s number line strategy to solve these subtraction problems.

a \( 45 - 17 \)

\[ 17 \quad \begin{array}{c} \downarrow \end{array} \quad 20 \quad \begin{array}{c} \downarrow \end{array} \quad 45 \]

so \( 45 - 17 = \)

b \( 54 - 25 \)

\[ 25 \quad 30 \quad 50 \quad 54 \]

so \( 54 - 25 = \)

c \( 57 - 18 \)

\[ 18 \quad \begin{array}{c} \downarrow \end{array} \quad 57 \]

so \( 57 - 18 = \)

(continued on next page)
Session 3

Subtraction & Graphing Practice page 2 of 2

Favorite Pets

2 The second graders in Ms. Nelson’s class made a graph with pictures to show their favorite pets. Each student put one picture on the graph to show his or her favorite pet. Use their graph to help answer the questions below.

<table>
<thead>
<tr>
<th>Our Favorite Pets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
</tr>
<tr>
<td>Birds</td>
</tr>
<tr>
<td>Cats</td>
</tr>
<tr>
<td>Dogs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pets</th>
<th>Numbers of Kids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>17</td>
</tr>
<tr>
<td>Birds</td>
<td>8</td>
</tr>
<tr>
<td>Cats</td>
<td>45</td>
</tr>
<tr>
<td>Dogs</td>
<td>62</td>
</tr>
</tbody>
</table>

a Which pet did most kids like the best? 

b How many more kids like dogs than fish the best? 

c How many fewer kids like birds than cats the best? 

d Write an equation to show how many kids put pictures on this graph.

3 The kids in Ms. Nelson’s class did a survey of all the second grades to find out about kids’ favorite pets. Use their chart to help answer the questions below.

a How many more kids like fish than birds the best?  
Show your work.

b How many more kids like dogs than cats the best?  
Show your work.
Three by Three Magic Squares

Fill in the numbers 1 to 9 so that each row, column, and diagonal add up to the same number—the magic number. You have to use all the numbers from 1 to 9, and use them each only once, in each Magic Square.

The magic number is ________.  The magic number is ________.

The magic number is ________.  The magic number is ________.

The magic number is ________.  The magic number is ________.
Answer Keys
Pencil Puppy & Pal page 1 of 2

1 Fill in the bubble next to the correct answer to each question.
   a The number on Pencil Puppy’s dog tag has a 6 in the tens place. It has a 4 in the ones place. What is the number on her tag?
      ○ 46  ● 64  ○ 14  ○ 67
   b The number on Pal’s dog tag has a 7 in the tens place. It has a 3 in the ones place. What is the number on Pal’s tag?
      ○ 17  ○ 37  ○ 30  ● 73

2 Fill in the correct answer.
   a Pencil Puppy’s house number has a 3 in the tens place. It has a 5 in the ones place.
      What is Pencil Puppy’s house number?  35
   b Pal’s house number has a 7 in the ones place. It has a 4 in the tens place.
      What is Pal’s house number?  47

3 Pencil Puppy has 43 pencils in her house. Pal has 29 pencils in his house. How many pencils do they have in all? Use numbers, pictures, and/or words to solve the problem and explain your answer.
   Student work will vary.

Pencil Puppy and Pal have 72 pencils in all.

(continued on next page)
4  Add. Use the pictures of base ten pieces to help. The second set of pieces for each problem is hidden, so you will have to draw them or imagine them.

```
a  
  36
+ 26
  62

b  
  39
+ 14
  43
```

5  When Pencil Puppy does 2-digit addition, she adds the tens first. Next, she adds the ones. Then she adds the two numbers to get the answer. Try her strategy.

```
ex

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

30 + 20 = \( \underline{50} \)
7 + 7 = \( \underline{14} \)
50 + 14 = \( \underline{64} \)

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

40 + 30 = \( \underline{70} \)
8 + 4 = \( \underline{12} \)
70 + 12 = \( \underline{82} \)

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

50 + 20 = \( \underline{70} \)
8 + 8 = \( \underline{16} \)
70 + 16 = \( \underline{86} \)

c

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

20 + 60 = \( \underline{80} \)
5 + 9 = \( \underline{14} \)
80 + 14 = \( \underline{94} \)

d

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

30 + 50 = \( \underline{80} \)
4 + 9 = \( \underline{13} \)
80 + 13 = \( \underline{93} \)

e

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

40 + 40 = \( \underline{80} \)
5 + 6 = \( \underline{11} \)
80 + 11 = \( \underline{91} \)
**Subtraction & Graphing Practice** page 1 of 2

DJ Hopper makes hops on the number line to solve 2-digit subtraction problems.

Here’s how he solved 53 – 26:

- Start at 26.
- Hop up to 30.
- Now hop up to 50.
- Then hop up to 53 and add up all your hops. That tells how far it is from 26 to 53.

\[ \begin{align*}
+4 & \quad +20 & \quad +3 \\
26 & \quad 30 & \quad 50 & \quad 53 \\
\end{align*} \]

\[ 4 + 20 + 3 = 27 \quad \text{so} \quad 53 - 26 = 27 \]

1. **Try DJ’s number line strategy to solve these subtraction problems.**

   **a** 45 – 17

   \[ \begin{align*}
   +20 & \quad +3 \\
   45 & \quad 40 & \quad 45 \\
   \end{align*} \]

   \[ 3 + 20 + 5 = 28 \quad \text{so} \quad 45 - 17 = 28 \]

   **b** 54 – 25

   \[ \begin{align*}
   +20 & \quad +4 \\
   25 & \quad 30 & \quad 50 & \quad 54 \\
   \end{align*} \]

   \[ 5 + 20 + 4 = 29 \quad \text{so} \quad 54 - 25 = 29 \]

   **c** 57 – 18

   \[ \begin{align*}
   +18 & \quad +19 \\
   18 & \quad 57 \\
   \end{align*} \]

   \[ \text{Student work will vary.} \quad \text{so} \quad 57 - 18 = 39 \]

(continued on next page)
Favorite Pets

2 The second graders in Ms. Nelson’s class made a graph with pictures to show their favorite pets. Each student put one picture on the graph to show his or her favorite pet. Use their graph to help answer the questions below.

<table>
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</tr>
<tr>
<td>Cats</td>
</tr>
<tr>
<td>Dogs</td>
</tr>
</tbody>
</table>

a Which pet did most kids like the best? __________ Dogs

b How many more kids like dogs than fish the best? __________ 7

c How many fewer kids like birds than cats the best? __________ 6

d Write an equation to show how many kids put pictures on this graph.
Student work will vary. 5 + 2 + 8 + 12 = 27

3 The kids in Ms. Nelson’s class did a survey of all the second grades to find out about kids’ favorite pets. Use their chart to help answer the questions below.

a How many more kids like fish than birds the best? Show your work.
Student work will vary. 17 – 8 = 9

b How many more kids like dogs than cats the best? Show your work.
Student work will vary. 62 – 45 = 17
### Three by Three Magic Squares

Fill in the numbers 1 to 9 so that each row, column, and diagonal add up to the same number—the magic number. You have to use all the numbers from 1 to 9, and use them each only once, in each Magic Square.

The magic number is \[\boxed{15}\].

The magic number is \[\boxed{15}\].

The magic number is \[\boxed{15}\].

The magic number is \[\boxed{15}\].

The magic number is \[\boxed{15}\].

The magic number is \[\boxed{15}\].