





Strategies to Add

Using Base-Ten Pieces



Self-Check: Question 1

- Solve $26 + 13$ using base-ten pieces. Record your work with base-ten shorthand and the recording sheet.





 1000s	 100s	 10s	 1s	Number Sentences

Use the Workshop Menu to choose practice with using base-ten pieces.





Workshop Menu			
Can I Do This?	▲ Working On It!  I could use some extra help.	● Getting It!  I just need some more practice.	■ Got It!  I'm ready for a challenge.
Use the base-ten pieces to add.	Questions 2–4, 8–9	Questions 4–9	Questions 4, 6–9

Solve using base-ten pieces. Record your work with base-ten shorthand and the recording sheet.





2. $27 + 32$

 1000s	 100s	 10s	 1s	Number Sentences





3. $\begin{array}{r} 68 \\ + 22 \\ \hline \end{array}$

 1000s	 100s	 10s	 1s	Number Sentences





4. $\begin{array}{r} 154 \\ + 28 \\ \hline \end{array}$

 1000s	 100s	 10s	 1s	Number Sentences





5. $\begin{array}{r} 318 \\ + 455 \\ \hline \end{array}$

 1000s	 100s	 10s	 1s	Number Sentences

6. $\begin{array}{r} 297 \\ + 88 \\ \hline \end{array}$



 1000s	 100s	 10s	 1s	Number Sentences

7. $686 + 587$

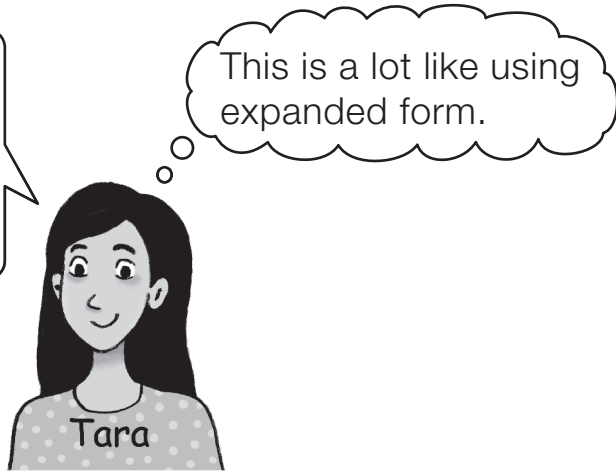
 1000s	 100s	 10s	 1s	Number Sentences

8. Look at Tara’s solution to $154 + 28$.

I thought about base-ten pieces.

$100 + 50 + 20 + 4 + 8 = 182$



Tara thinks her strategy is similar to using expanded form.

$$\begin{array}{r}
 154 = 100 + 50 + 4 \\
 + 28 \quad \underline{20 + 8} \\
 \hline
 100 + 70 + 12 = 182
 \end{array}$$

Do you agree with Tara? Why or why not?

9. Choose a problem from Questions 1–7 to solve using expanded form. Show your work below.

Using Mental Math Strategies

Self-Check: Questions 10–11




10. Use a mental math strategy to solve $64 + 59$. Explain your strategy.




11. Use a number line to show how to solve $458 + 302$.



Use the Workshop Menu to choose practice with using mental math strategies to add.

Workshop Menu			
Can I Do This?	▲ Working On It!  I could use some extra help.	● Getting It!  I just need some more practice.	■ Got It!  I'm ready for a challenge.
Use mental math strategies to add.	Questions 12–14, 15E–G	Questions 13–15	Questions 14–15

12. Ms. Alfonso challenged the class to use a mental math strategy to solve each of the problems below. Grace and her classmates recorded their mental math strategies. Solve the problem next to each one using a similar strategy. Explain your thinking to your partner.



Grace


$341 + 99 =$

“I took the 1 from the 341 and put it with the 99 right away. Now the problem is $340 + 100$, which is *easy*, 440.”

A. $132 + 98 =$

$157 + 25 =$


“I thought about money.”



Peter

$150 + 25 = 175 + 7 = 182$

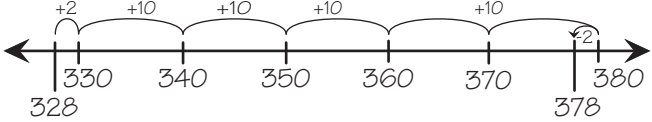
B. $504 + 75 =$



Ana

$328 + 50 =$


“I made notes, but I pictured the number line to count on. I started at 328 and hopped +2 to 330. It is *easier* to hop on tens. After five +10 hops I land on 380. Hop back 2 to 378. $328 + 50 = 378$.”



C. $352 + 98 =$

$220 + 160 =$



“I separated out the hundreds. I added $200 + 100$. That is 300. Then $20 + 60 = 80$, so my answer is $300 + 80 = 380$.”






Frank

$$\begin{array}{r} 200 + 20 \\ 100 + 60 \\ \hline 300 + 80 \end{array}$$

D. $350 + 250 =$

-   **13.** Use a mental math strategy to solve $548 + 132$. Explain your strategy to your partner. Make some notes to record your partner's strategy below. Include your partner's name.



-    **14.** Use a mental math strategy to solve $732 + 198$. Explain your strategy to your partner. Make some notes to record your partner's strategy below. Include your partner's name.



15. Solve the following problems using a mental math strategy. Record your answer and explain your strategy to your partner. You do not need to write your strategy down, but you can jot down some notes.

 **A.** $325 + 175 =$


 **B.** $604 + 498 =$

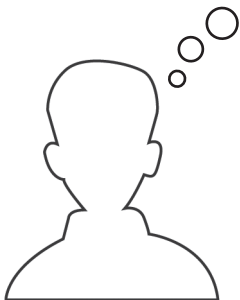
 **C.** $130 + 208 =$

 **D.** $849 + 121 =$

 **E.** $747 + 297 =$

 **F.** $998 + 767 =$

 **G.** Show how you solved one of the problems above by describing your strategy in the thought bubble below.



Using Mental Math Strategies






Self-Check: Question 16

Use the *Addition Strategies Menu*.

- 16.** Solve $48 + 37$ using three different strategies or methods.

Use the Workshop menu to choose practice with addition methods.

Workshop Menu			
Can I Do This?	▲ Working On It!	● Getting It!	■ Got It!
	 <p>I could use some extra help.</p>	 <p>I just need some more practice.</p>	 <p>I'm ready for a challenge.</p>
Use different methods to add multidigit numbers.	<p>Questions 17–20</p> <p>Use each of these methods at least once:</p> <ul style="list-style-type: none"> • base-ten pieces • expanded form • all-partials 	<p>Questions 20–21</p> <p>Use each of these methods at least once:</p> <ul style="list-style-type: none"> • all-partials • expanded form • compact method 	<p>Questions 20–21</p> <p>Use each of these methods at least once:</p> <ul style="list-style-type: none"> • all-partials • compact method

17. Here is how Sam solved
 $343 + 276$.

343
 $+ 276$

 $300 + 200 + 100 + 10 + 9 = 619$

Use the same method to solve
 $83 + 738$.

18. Here is how Nisha solved
 $328 + 172$.

$328 = 300 + 20 + 8$
 $+ 172 = 100 + 70 + 2$

 $400 + 90 + 10 = 500$

Use the same method to solve
 $473 + 279$.


19. Here is how Josh solved
 $329 + 476$.

329
 $+ 476$

 700
 90

 15
 805

Use the same method to solve
 $847 + 278$.

 **20.** Use the Workshop Menu to choose your own strategies and methods to solve the following problems. Use the *Addition Strategies Menu* as a guide.

A. $137 + 68$

B.
$$\begin{array}{r} 66 \\ + 46 \\ \hline \end{array}$$

C. $35 + 46$

D. $446 + 210$

E. $232 + 124$

F.
$$\begin{array}{r} 1448 \\ + 2436 \\ \hline \end{array}$$

G.
$$\begin{array}{r} 23 \\ + 46 \\ \hline \end{array}$$

H. $2558 + 3226$

21. • Using the *Addition Strategies Menu* as a guide, show how to solve each problem using two different strategies. Compare your strategies. Circle the one you like best.

- Use a mental math strategy at least three times.
- Use each paper-and-pencil strategy at least once.

One Strategy	Another Strategy
A. $375 + 427 =$	
B. $498 + 204 =$	
C. $\begin{array}{r} 127 \\ + 786 \\ \hline \end{array}$	
D. $\begin{array}{r} 366 \\ + 252 \\ \hline \end{array}$	

Did you try all of the strategies on the *Addition Strategies Menu*?