

Unit 2: Patterns in Addition and Subtraction

Review

1. Draw a picture of base ten materials to solve the following addition problems.

$568 + 124 = 692$	$345 + 491 = 836$	$283 + 617 = 900$
6 9 2	8 3 6	9 0 0

2. Draw a picture of base ten materials to solve the following subtraction problems.

$834 - 509 = 325$	$700 - 248 = 452$	$406 - 143 = 263$
3 2 5	4 5 2	2 6 3

3. Use the standard method to solve the following addition problems.

$\begin{array}{r} 712 \\ + 239 \\ \hline 951 \end{array}$	$\begin{array}{r} 399 \\ + 489 \\ \hline 888 \end{array}$	$\begin{array}{r} 507 \\ + 116 \\ \hline 623 \end{array}$	$\begin{array}{r} 151 \\ + 475 \\ \hline 626 \end{array}$
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4. Use the standard method to solve the following subtraction problems.

$\begin{array}{r} 212 \\ 932 \\ \hline - 217 \\ \hline 715 \end{array}$	$\begin{array}{r} 718 \\ 884 \\ \hline - 393 \\ \hline 491 \end{array}$	$\begin{array}{r} 610 \\ 705 \\ \hline - 611 \\ \hline 94 \end{array}$	$\begin{array}{r} 614 \\ 574 \\ \hline - 148 \\ \hline 426 \end{array}$
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5. Mr Holland bought a lego set with 582 pieces. He already had a lego set with 345 pieces. *How many lego pieces does Mr Holland have altogether?* Show your work using pictures, numbers, and words.

9 2 7

$$\begin{array}{r} 582 \\ + 345 \\ \hline 927 \end{array}$$

Mr Holland has 927 lego pieces altogether.

6. Aditi, Lindsay, and Corey went out for lunch together. The bill came to 679 HKD. Aditi gave 212 HKD and Corey gave 173 HKD. How much does Lindsay have to pay? **Hint:** You will need to add first and then subtract! Show your work using pictures, numbers, and words.

3 8 5

$$\begin{array}{r} 212 \text{ HKD} \\ + 173 \text{ HKD} \\ \hline 385 \text{ HKD} \end{array}$$

2 9 4

$$\begin{array}{r} 679 \\ - 385 \\ \hline 294 \text{ HKD} \end{array}$$

Lindsay has to pay 294 HKD

7. Which number is the better estimate for each sum? Why do you think so?

Hint: You will need to round the numbers first and then add!

$71 \rightarrow 70$	$44 \rightarrow 40$	$126 \rightarrow 100$
$+ 12 \rightarrow 10$	$+ 23 \rightarrow 20$	$+ 364 \rightarrow 400$
80 or 90?	60 or 70?	400 or 500?

8. Write the *related facts* for the number sets below.

24, 14, 10	6, 18, 12	5, 8, 13	11, 22, 11
$14 + 10 = 24$	$6 + 12 = 18$	$5 + 8 = 13$	$11 + 11 = 22$
$10 + 14 = 24$	$12 + 6 = 18$	$8 + 5 = 13$	$22 - 11 = 11$
$24 - 10 = 14$	$18 - 12 = 6$	$13 - 8 = 5$	
$24 - 14 = 10$	$18 - 6 = 12$	$13 - 5 = 8$	

9. 6, 10, and are the numbers in a set of related facts.

a. What could the missing number be? Write the related facts.

b. What is another possible missing number? Write the related facts for this number.

a. The missing number could be 4.

$$6 + 4 = 10 \quad 10 - 6 = 4$$

$$4 + 6 = 10 \quad 10 - 4 = 6$$

b. Another possible missing number is 16.

$$6 + 10 = 16 \quad 16 - 10 = 6$$

$$10 + 6 = 16 \quad 16 - 6 = 10$$

10. Find each missing number.

a. $12 - \boxed{6} = 6$

b. $\boxed{4} + 9 = 13$

c. $\boxed{21} - 7 = 14$

d. $4 + \boxed{8} = 12$

11. What number do you subtract from 35 to make 17? How did you figure out the answer? Show your work please.

I know that $35 - 17 = 18$, so $35 - 18$ must equal 17.

$$\begin{array}{r} 2 \quad 15 \\ 35 \\ - 17 \\ \hline 18 \end{array}$$