



Subtraction facts to 20 the 36 that start at 11 or more • no cutting • keep it on the fridge

Find the panel for the number you take away, then go down to your starting number. Take away 8:
 $13 - 8 = 5$.

take away 2	take away 3	take away 4	take away 5
$11 - 2 = 9$	$11 - 3 = 8$	$11 - 4 = 7$	$11 - 5 = 6$
	$12 - 3 = 9$	$12 - 4 = 8$	$12 - 5 = 7$
		$13 - 4 = 9$	$13 - 5 = 8$
			$14 - 5 = 9$
take away 6	take away 7	take away 8	take away 9
$11 - 6 = 5$	$11 - 7 = 4$	$11 - 8 = 3$	$11 - 9 = 2$
$12 - 6 = 6$	$12 - 7 = 5$	$12 - 8 = 4$	$12 - 9 = 3$
$13 - 6 = 7$	$13 - 7 = 6$	$13 - 8 = 5$	$13 - 9 = 4$
$14 - 6 = 8$	$14 - 7 = 7$	$14 - 8 = 6$	$14 - 9 = 5$
$15 - 6 = 9$	$15 - 7 = 8$	$15 - 8 = 7$	$15 - 9 = 6$
	$16 - 7 = 9$	$16 - 8 = 8$	$16 - 9 = 7$
		$17 - 8 = 9$	$17 - 9 = 8$
			$18 - 9 = 9$

 Doubles backwards: $12 - 6$, $14 - 7$, $16 - 8$, $18 - 9$

- 0: $14 - 0 = 14$

- itself: $14 - 14 = 0$

- 1: $14 - 1 = 13$

- the ones: $14 - 4 = 10$

Look for patterns. Take away 9: the answer is 1 more than the ones ($14 - 9 = 5$). Take away 8: 2 more ($14 - 8 = 6$). Going down a panel, the answers count up by one. Every fact has an addition twin: $13 - 8 = 5$ because $8 + 5 = 13$.



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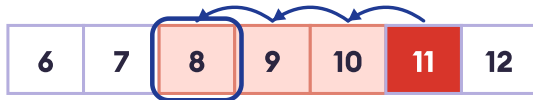


Subtraction strategies within 20 six ways • pick the quickest

Take away 1, 2 or 3: count back. Close numbers: count up. Everything else: use the ten.

1 Count back for take away 1, 2 or 3

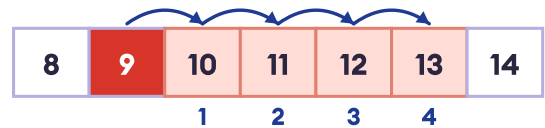
$$11 - 3 = 8$$



Finger on 11, don't say it. Hop back: 10, 9, 8.

2 Count up think addition

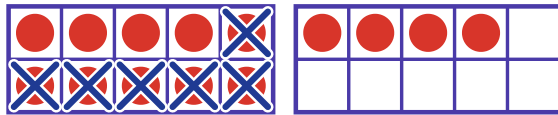
$$13 - 9 = 4$$



Start at 9, count up to 13. 4 counts. $9 + 4 = 13$.

3 Take from ten

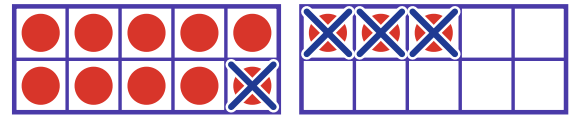
$$14 - 6 = 8$$



Take 6 from the ten: 4 left. Put the ones back:
 $4 + 4 = 8$.

4 Down to ten

$$13 - 4 = 9$$



$13 - 3 = 10$, then $10 - 1 = 9$.

5 Use a fact you know

$$8 + 8 = 16, \text{ so } 16 - 8 = 8$$

$$6 + 7 = 13, \text{ so } 13 - 7 = 6$$

6 The easy ones

$$\text{-- 0: } 15 - 0 = 15$$

$$\text{-- itself: } 12 - 12 = 0$$

$$\text{-- 1: } 17 - 1 = 16$$

$$\text{-- the ones: } 16 - 6 = 10$$



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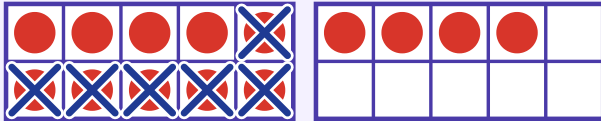
Take from ten

cross out from the full ten, then put the ones back

Name _____

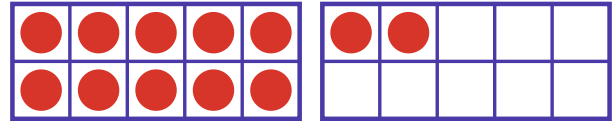
Draw an X on each one you take away, starting from the end of the full ten. Count what's left in the ten, then add the ones.

1. $14 - 6 = \boxed{8}$ done for you



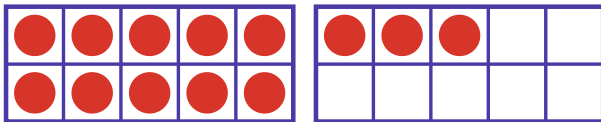
$\boxed{4}$ left in the ten + $\boxed{4} = \boxed{8}$

2. $12 - 9 = \boxed{}$



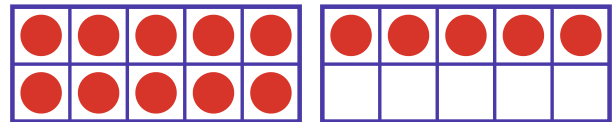
$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$

3. $13 - 7 = \boxed{}$



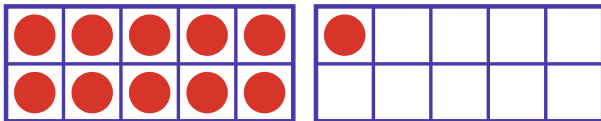
$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$

4. $15 - 8 = \boxed{}$



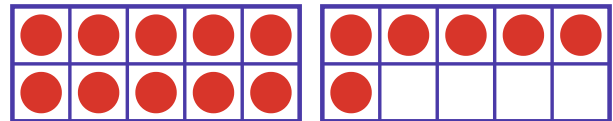
$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$

5. $11 - 6 = \boxed{}$



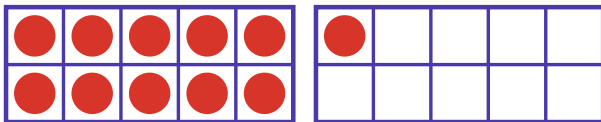
$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$

6. $16 - 9 = \boxed{}$



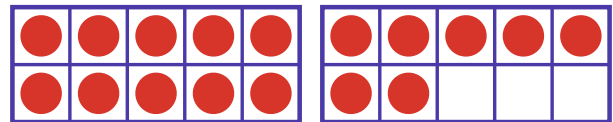
$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$

7. $11 - 7 = \boxed{}$



$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$

8. $17 - 8 = \boxed{}$



$\boxed{}$ left in the ten + $\boxed{} = \boxed{}$



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Down to ten

take away the ones first, then the rest from the ten

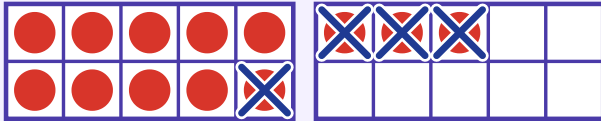
Name _____

Cross out from the end: the ones first, then from the full ten. Write the two steps.

1.

$$13 - 4 = \boxed{9}$$

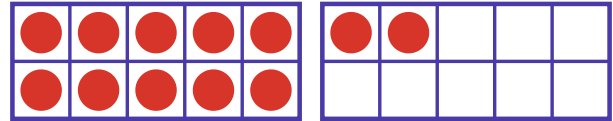
done for you



$$13 - \boxed{3} = 10, 10 - \boxed{1} = \boxed{9}$$

2.

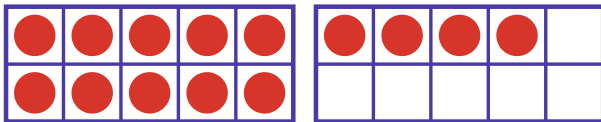
$$12 - 5 = \boxed{}$$



$$12 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$

3.

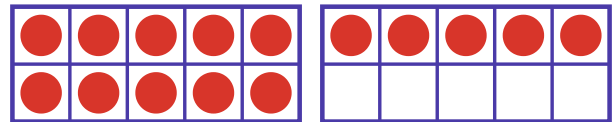
$$14 - 8 = \boxed{}$$



$$14 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$

4.

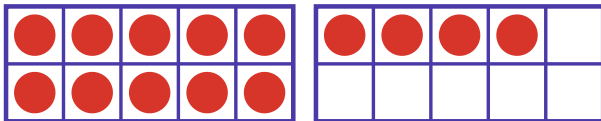
$$15 - 7 = \boxed{}$$



$$15 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$

5.

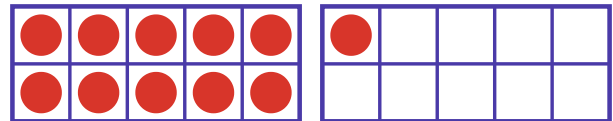
$$14 - 5 = \boxed{}$$



$$14 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$

6.

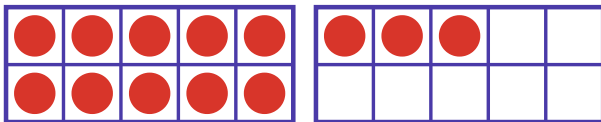
$$11 - 4 = \boxed{}$$



$$11 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$

7.

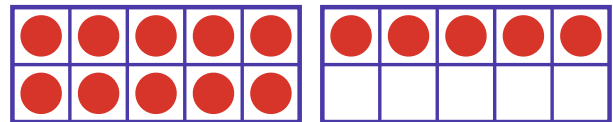
$$13 - 8 = \boxed{}$$



$$13 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$

8.

$$15 - 6 = \boxed{}$$



$$15 - \boxed{} = 10, 10 - \boxed{} = \boxed{}$$



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Count back, count up a finger on the path, one box at a time Name _____

A. Count back: take away 1, 2 or 3

Put your finger on the first number, but don't say it. Hop back one box for each one you take away.

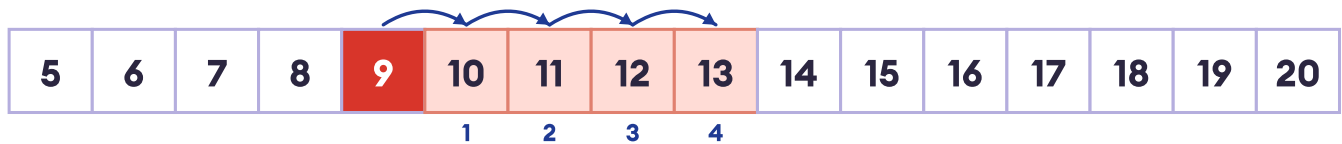


11 - 3: start on 11, don't say it, then 10, 9, 8.

1.	11 - 3 =	8	done for you	5.	13 - 3 =	
2.	15 - 2 =			6.	20 - 2 =	
3.	12 - 3 =			7.	19 - 3 =	
4.	17 - 3 =			8.	14 - 3 =	

B. Count up: think addition

Put your finger on the number you take away. Count up to the first number. The counts are the answer.



13 - 9: start on 9, count 10, 11, 12, 13. That's 4.

9.	13 - 9 =	4	done for you	13.	18 - 15 =	
10.	11 - 8 =			14.	12 - 7 =	
11.	15 - 11 =			15.	20 - 17 =	
12.	14 - 12 =			16.	16 - 14 =	



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Which way is quickest? four ways to take away: pick one

Name _____

Tick the quickest way, then write the answer. Any way that gets the right answer is fine.

1. $16 - 2 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	9. $15 - 3 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
2. $14 - 9 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	10. $14 - 7 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
3. $17 - 9 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	11. $16 - 7 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
4. $13 - 6 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	12. $20 - 16 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
5. $18 - 9 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	13. $13 - 5 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
6. $12 - 4 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	14. $12 - 6 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
7. $19 - 17 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	15. $15 - 9 = \square$ ☐ back ☐ up ☐ ten ☐ I know it
8. $11 - 5 = \square$ ☐ back ☐ up ☐ ten ☐ I know it	16. $18 - 8 = \square$ ☐ back ☐ up ☐ ten ☐ I know it

Any way that gets the right answer is a good way. Ask: how did you work it out?



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Practice: facts past 10

take away 5 to 9 • in a row

Name _____

Say the answer, then write it. Stuck? Use any way from page 2, or check the chart on page 1.

1. $11 - 8 =$	11. $12 - 7 =$	21. $16 - 8 =$
2. $18 - 9 =$	12. $13 - 5 =$	22. $13 - 7 =$
3. $11 - 7 =$	13. $14 - 7 =$	23. $15 - 6 =$
4. $14 - 5 =$	14. $11 - 6 =$	24. $12 - 9 =$
5. $12 - 6 =$	15. $15 - 7 =$	25. $13 - 6 =$
6. $17 - 9 =$	16. $13 - 8 =$	26. $16 - 7 =$
7. $14 - 8 =$	17. $16 - 9 =$	27. $13 - 9 =$
8. $12 - 5 =$	18. $11 - 5 =$	28. $14 - 6 =$
9. $11 - 9 =$	19. $12 - 8 =$	29. $15 - 8 =$
10. $17 - 8 =$	20. $15 - 9 =$	30. $14 - 9 =$

Two or three minutes is plenty. Circle the ones that were slow and try them again tomorrow.



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How many more? line them up, count the extras

Name _____

Circle the extra cubes on the longer train. That's how many more. Then write the take-away.

red  done for you

yellow 

How many more red? more

- =

red 

yellow 

How many more yellow? more

- =

red 

yellow 

How many more red? more

- =

red 

yellow 

How many more yellow? more

- =

red 

yellow 

How many more red? more

- =



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Flash cards: cut out on the dashed lines. Say the answer, then turn the card over to check. The answers are on page 10: print it on the back of this page (flip on the long edge).

COUNT BACK CARD 1 OF 15 11 - 2 	COUNT BACK CARD 2 OF 15 11 - 3 	COUNT UP CARD 3 OF 15 11 - 9
COUNT UP CARD 4 OF 15 12 - 9 	COUNT UP CARD 5 OF 15 12 - 8 	COUNT UP CARD 6 OF 15 13 - 8
USE THE TEN CARD 7 OF 15 12 - 7 	A DOUBLE CARD 8 OF 15 12 - 6 	USE THE TEN CARD 9 OF 15 15 - 9
A DOUBLE CARD 10 OF 15 14 - 7 	USE THE TEN CARD 11 OF 15 16 - 9 	A DOUBLE CARD 12 OF 15 16 - 8
USE THE TEN CARD 13 OF 15 14 - 6 	USE THE TEN CARD 14 OF 15 13 - 4 	USE THE TEN CARD 15 OF 15 14 - 5



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Answer cards. Print on the back of page 9 so each answer sits behind its card, or cut them out and play match: a card and its answer make a pair.

ANSWER CARD 3 OF 15 2 $11 - 9 = 2$ 	ANSWER CARD 2 OF 15 8 $11 - 3 = 8$ 	ANSWER CARD 1 OF 15 9 $11 - 2 = 9$ 
ANSWER CARD 6 OF 15 5 $13 - 8 = 5$ 	ANSWER CARD 5 OF 15 4 $12 - 8 = 4$ 	ANSWER CARD 4 OF 15 3 $12 - 9 = 3$ 
ANSWER CARD 9 OF 15 6 $15 - 9 = 6$ 	ANSWER CARD 8 OF 15 6 $12 - 6 = 6$ 	ANSWER CARD 7 OF 15 5 $12 - 7 = 5$ 
ANSWER CARD 12 OF 15 8 $16 - 8 = 8$ 	ANSWER CARD 11 OF 15 7 $16 - 9 = 7$ 	ANSWER CARD 10 OF 15 7 $14 - 7 = 7$ 
ANSWER CARD 15 OF 15 9 $14 - 5 = 9$ 	ANSWER CARD 14 OF 15 9 $13 - 4 = 9$ 	ANSWER CARD 13 OF 15 8 $14 - 6 = 8$ 



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Answer key for grown-ups

Page 3: take from ten

1. $14 - 6 = 8$ (4 left in the ten + 4)
2. $12 - 9 = 3$ (1 left in the ten + 2)
3. $13 - 7 = 6$ (3 left in the ten + 3)
4. $15 - 8 = 7$ (2 left in the ten + 5)
5. $11 - 6 = 5$ (4 left in the ten + 1)
6. $16 - 9 = 7$ (1 left in the ten + 6)
7. $11 - 7 = 4$ (3 left in the ten + 1)
8. $17 - 8 = 9$ (2 left in the ten + 7)

Page 4: down to ten

1. $13 - 4 = 9$ ($13 - 3 = 10$, $10 - 1 = 9$)
2. $12 - 5 = 7$ ($12 - 2 = 10$, $10 - 3 = 7$)
3. $14 - 8 = 6$ ($14 - 4 = 10$, $10 - 4 = 6$)
4. $15 - 7 = 8$ ($15 - 5 = 10$, $10 - 2 = 8$)
5. $14 - 5 = 9$ ($14 - 4 = 10$, $10 - 1 = 9$)
6. $11 - 4 = 7$ ($11 - 1 = 10$, $10 - 3 = 7$)
7. $13 - 8 = 5$ ($13 - 3 = 10$, $10 - 5 = 5$)
8. $15 - 6 = 9$ ($15 - 5 = 10$, $10 - 1 = 9$)

Page 5: count back, count up

1. $8 \cdot 2$, $13 \cdot 3$, $9 \cdot 4$, 14
5. $10 \cdot 6$, $18 \cdot 7$, $16 \cdot 8$, 11
9. $4 \cdot 10$, $3 \cdot 11$, $4 \cdot 12$, 2
13. $3 \cdot 14$, $5 \cdot 15$, $3 \cdot 16$, 2

Page 6: which way is quickest?

1. $16 - 2 = 14$ back
2. $14 - 9 = 5$ up
3. $17 - 9 = 8$ ten
4. $13 - 6 = 7$ ten
5. $18 - 9 = 9$ I know it (a double)
6. $12 - 4 = 8$ ten
7. $19 - 17 = 2$ up
8. $11 - 5 = 6$ ten
9. $15 - 3 = 12$ back
10. $14 - 7 = 7$ I know it (a double)
11. $16 - 7 = 9$ ten
12. $20 - 16 = 4$ up
13. $13 - 5 = 8$ ten
14. $12 - 6 = 6$ I know it (a double)
15. $15 - 9 = 6$ ten
16. $18 - 8 = 10$ I know it (take away the ones)

Page 7: facts past 10

- | | | |
|-------|-------|-------|
| 1. 3 | 11. 5 | 21. 8 |
| 2. 9 | 12. 8 | 22. 6 |
| 3. 4 | 13. 7 | 23. 9 |
| 4. 9 | 14. 5 | 24. 3 |
| 5. 6 | 15. 8 | 25. 7 |
| 6. 8 | 16. 5 | 26. 9 |
| 7. 6 | 17. 7 | 27. 4 |
| 8. 7 | 18. 6 | 28. 8 |
| 9. 2 | 19. 4 | 29. 7 |
| 10. 9 | 20. 6 | 30. 5 |

Page 8: how many more?

1. 4 more, $12 - 8 = 4$
2. 6 more, $17 - 11 = 6$
3. 5 more, $15 - 10 = 5$
4. 3 more, $17 - 14 = 3$
5. 7 more, $20 - 13 = 7$

Cards: the answers are on page 10.



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