Eureka Math™ Homework Helper

2015–2016

Grade 2
Module 1
Lessons 1–8

G2-M1-Lesson 1

Fluency Practice

Making ten and adding to ten is foundational to future Grade 2 strategies. Students use a number bond to show the part–whole relationship with numbers.

This is the whole.

10

2   8

This is one part.

This is the other part.

$8 + 2 = 10$

I know part + part = whole.

$2 + 8 = 10$

$10 - 8 = 2$

$10 - 2 = 8$

I also know whole − part = part.
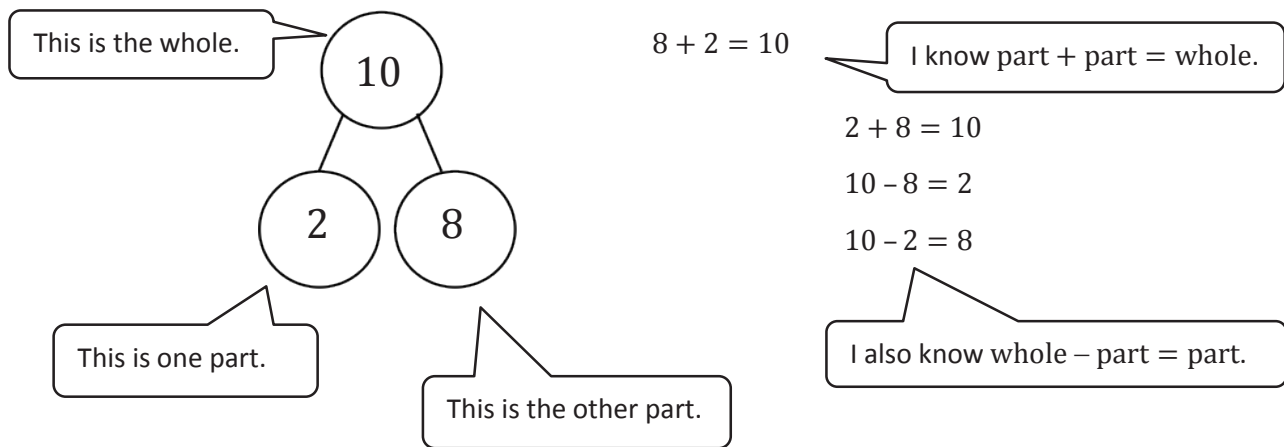
$10 = 7 + $ **3**

I need to be careful when looking at the signs.
This says 10 *equals* 7 + ___, not 10 *plus* 7 = ___.
That means 10 is the same as 7 + 3.

G2-M1-Lesson 2

Fluency Practice

Making the next ten and adding to a multiple of ten is foundational to future Grade 2 strategies. Students continue to use a number bond to show the part-whole relationship with numbers.

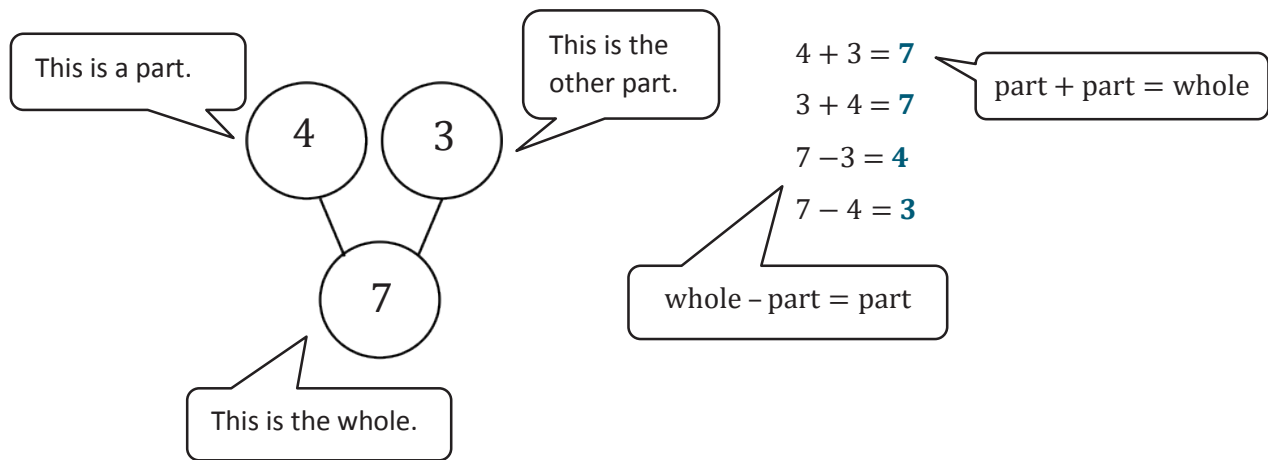This is a part.

This is the other part.

$4 + 3 = 7$

$3 + 4 = 7$

part + part = whole

4   3

$7 - 3 = 4$

$7 - 4 = 3$

7

whole – part = part

This is the whole.

1. $30 + 6 = 36$

    I can add 3 tens and 6 ones to get 36.

2. $64 = 60 + 4$

    I can break apart 64 into tens and ones.
    64 is 6 tens and 4 ones, so $64 = 60 + 4$.

3. $35 = 30 + 5$

    I can think 35 is 5 and what?

G2-M1-Lesson 3

Add and Subtract Like Units, Ones, To Solve Problems Within 100

1. $20 + 7 = $ **27**

> $20 + 7 = $ _____
>
>   I can think 2 tens + 7 ones = 2 tens 7 ones.
>
> To solve $20 + 70$ add tens to tens. The units are the same, so I can add them together.
>
>   2 tens + 7 tens = 9 tens.

2. $20 + 70 = $ **90**

3. $62 + 3 = $ **65**

4. $62 + 30 = $ **92**

> To solve $62 + 3$ add ones to ones.
>
>   6 tens 2 ones + 3 ones = 6 tens 5 ones
>
> To solve $62 + 30$ add tens to tens.
>
>   6 tens 2 ones + 3 tens = 9 tens 2 ones

5. Complete each blank in the table below.

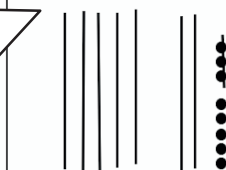> I can use a related fact to help me solve. I know $4 + 5 = 9$, so $24 + 5 = 29$.

> I can think 2 tens + 5 tens = 7 tens. I can break apart 24 and draw a number bond if I need help seeing the units.

> I can draw tens and ones to help me. Now it is easy to see 8 ones - 3 ones is 5 ones, and the 7 tens did not change.
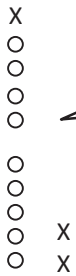
a. $24 + 5 = $ **29**	b. $24 + 50 = $ **74** 20 4
c. $78 - 3 = $ **75**	d. $78 - 30 = $ **48**

G2-M1-Lesson 4

Making Ten from an Addend of 9, 8, or 7

1. $9 + 3 = \textbf{12}$

    X
    O
    O
    O
    O

    O
    O
    O
    O X
    O X

    > I can draw 9 circles and 3 Xs to add.
    >
    > I see that I made a ten! Now it is easy to add because I know $10 + 2$ is 12.

2. $8 + 7 = \textbf{15}$

    $\bigwedge$
    2   5

    $\textbf{8 + 2 = 10}$
    $\textbf{10 + 5 = 15}$
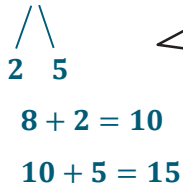
    > I can also solve without a drawing.
    >
    > 8 is closer to 10 than 7, so I can make 10 with the 8.
    >
    > 8 needs 2 to make 10, so I can break apart 7 with a number bond to get the 2 out.
    >
    > Now I can add 8 and 2 to get 10, and now it is easy to add what is left; 10 and 5 is 15.
    >
    > So $8 + 7$ is 15.

3. $10 + \textbf{2} = 12$

    > To solve, I can think 10 and what make 12? 10 and 2 make 12.

4. $9 + \textbf{3} = 12$

    > I know 9 is 1 less than 10, so the answer for $9 + \_ = 12$ must be 1 more than $10 + \_ = 12$.
    >
    > So $9 + 3 = 12$.

5. Ronnie uses 5 brown bricks and 8 red bricks to build a fort. How many bricks does Ronnie use in all?

$$5 + 8 = 13$$

3   2

> I can use this strategy to solve word problems too! I know 2 parts, so I can add to find the whole.

$$8 + 2 = 10$$

$$10 + 3 = 13$$

Ronnie used 13 bricks in all.

G2-M1-Lesson 5

Making the Next Ten

1. $9 + 3 =$ **12**

X
O
O
O
O
O   O O O

O
O
O
O   X
O   X
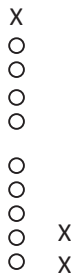
> If I need to, I can draw circles and Xs to add.
>
> I see that I made a ten! Now it is easy to add because I know $10 + 2$ is 12.

2. $19 + 3 =$ **22**
    /\
    1   2

    19 + 1 = 20
    20 + 2 = 22

> I know 19 is really close to a ten, 20. It just needs 1 more.
> I can break apart 3 with a number bond to get the 1 out.
> Now I can add 19 and 1 to get 20, and it is easy to add 20 and 2.
> So, $19 + 3$ is 22.

3. $38 + 7 =$ _____
    /\
    2   5

> 38 is close to 40. I know $8 + 2 = 10$, so 38 needs 2 more to make the next ten.
>
> I can break apart the 7 into 2 and 5 to get 2 out.
>
> In my head, I can add $38 + 2$ to get 40. Now, I just add what is left, $40 + 5$ is 45, so $38 + 7 = 45$.
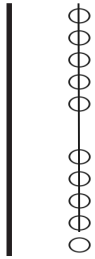
4. $8 + 78 =$ _____
    /\
    6   2

    78 + 2 = 80
    80 + 6 = 86

> Using this strategy is easy because I:
> - Can break apart numbers, like 8 into 6 and 2.
> - Know 8 ones need 2 ones to make 10, so $78 + 2 = 80$.
> - Know how to add tens and some ones, like $80 + 6$.

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Lesson 5:   Make a ten to add within 100.

6

G2-M1-Lesson 6

1. $20 - 9 =$ ___**11**___

> I can draw 20 and show how I will take 9 from a ten.
>
> Now I see 10 and 1 left, which is 11. So, $20 - 9$ is 11.

2. $30 - 7 =$ ___**23**___

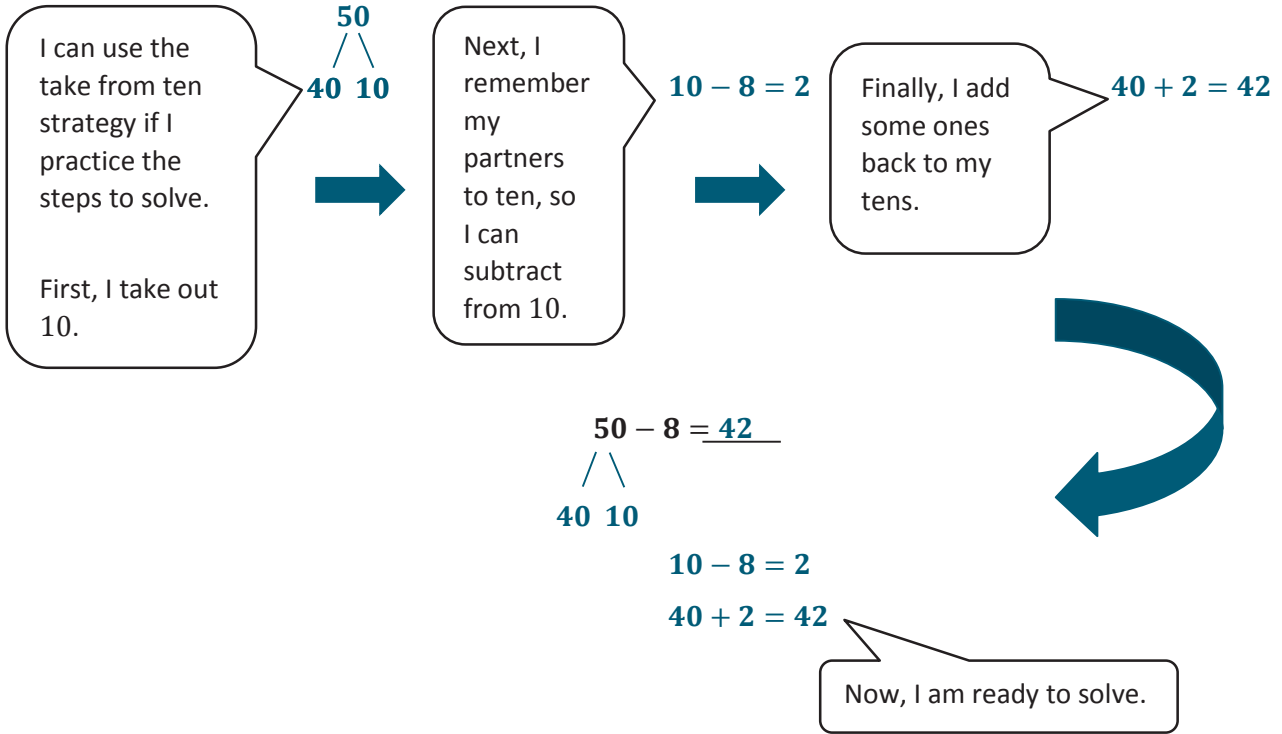   **20 10**

   $10 - 7 = 3$

   $20 + 3 = 23$

> I can solve without drawing, too!
>
> First, I break apart 30 with a number bond to take out 10.
>
> Next, I take 7 from 10. I know from my partners to ten that is 3.
>
> $20 + 3 = 23$, so $30 - 7$ is 23.

3. $50 - 8 =$ __42__

50
/ \
40 10

I can use the take from ten strategy if I practice the steps to solve.

First, I take out 10.

Next, I remember my partners to ten, so I can subtract from 10.

$10 - 8 = 2$

Finally, I add some ones back to my tens.

$40 + 2 = 42$

$50 - 8 =$ __42__
/ \
40 10

$10 - 8 = 2$

$40 + 2 = 42$

Now, I am ready to solve.

G2-M1-Lesson 7

Take from 10

1. $12 - 9 = 3$

I can draw 12 and show how I will take 9 from 10.

Now I see 1 and 2 left, which is 3. So $12 - 9 = 3$.

$12 - 9 = 3$

$2 \quad 10$

$10 - 9 = 1$
$2 + 1 = 3$

I can solve without drawing too! I can break apart 12 into 2 and 10. Now, it is easy to take 9 from 10. $10 - 9$ is 1. And then I just add what is left. $2 + 1$ is 3.

So, $12 - 9$ is 3.

2. $14 - 8 = 6$

First, take out 10.

$14 - 8 = $___

$4 \quad 10$

Now, subtract from 10.

$10 - 8 = 2$

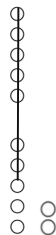And adding what is left is easy because I know my related facts.

$2 + 4 = 6$

So $14 - 8 = 6$.

3. Shane has 12 pencils. He gives some pencils to his friends. Now, he has 7 left. How many pencils did he give away?

$12 - 7 = 5$

$2 \quad 10$

$10 - 7 = 3$
$3 + 2 = 5$

Shane gave away 5 pencils.

I can use this strategy to solve word problems, too!

I know the whole and a part. That means a part is missing! I can subtract to find how many pencils Shane gave away.

G2-M1-Lesson 8

Take from 10

> I can use the same take from ten strategy when subtracting from bigger numbers!

> I can break apart 52 into 42 and 10. Now it is easy to take away 9. I know from the partners to ten that $10 - 9$ is 1. Now I just add what is left. $42 + 1$ is 43.

1. $12 - 9 = $ **3**
        2   10
           $\mathbf{10 - 9 = 1}$
           $\mathbf{2 + 1 = 3}$

➡

$52 - 9 = $ **43**
   42   10
        $\mathbf{10 - 9 = 1}$
        $\mathbf{42 + 1 = 43}$

2. $61 - 5 = $ __**56**__

> Let's get ready to use this strategy! Let's take out 10.

$\mathbf{61 - 5}$
   51   10

> Now, let's practice subtracting from 10.
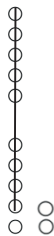
$\mathbf{10 - 5 = 5}$

> And adding what is left is easy because I know my related facts.

$\mathbf{51 + 5 = 56}$

3.   Mrs. Watts had 12 tacos. The children ate some. Nine tacos were left. How many tacos did the children eat?

$\mathbf{12 - 9} = $__
   2   10
        $\mathbf{10 - 9 = 1}$
        $\mathbf{2 + 1 = 3}$

The children ate 3 tacos.

> I can use this strategy to solve word problems, too!
>
> I know the whole and a part. That means a part is missing! I can subtract to find how many tacos the children ate.