

Eureka Math

4th Grade Module 3 Lesson 25

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Directions for customizing presentations are available on the next slide.



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Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

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- The view now looks like Screen B.
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- Choose MAKE A COPY and rename your presentation.
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- It is now editable & housed in MY DRIVE.

The image shows a transition from a presentation viewer (Screen A) to an editor (Screen B). In Screen A, the slide content is centered on a blue background. In Screen B, the same slide is shown in a smaller window, and the Google Slides editor interface is visible. A red arrow points from the 'pop-out' button in Screen A to the editor window in Screen B. The 'File' menu is open, and the 'Make a copy...' option is highlighted. A 'Copy document' dialog box is open, showing the 'Rename Your Presentation' text input field.

Screen A

ReadyGEN™ in Action

3rd Grade
Unit 3, Module A
Lesson 1

“pop-out”

Screen B

Gr3(2) U3MAL1 Sample Lesson.pptx

File Edit View Insert Slide Format Arrange Tools Table Help Last edit was yesterday at

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Import slides...

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Comments will not be copied to the new document.

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ReadyGEN™ in Action

3rd Grade
Unit 3, Module A
Lesson 1

Icons



Read, Draw, Write



Learning Target



Personal White Board



Problem Set



Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



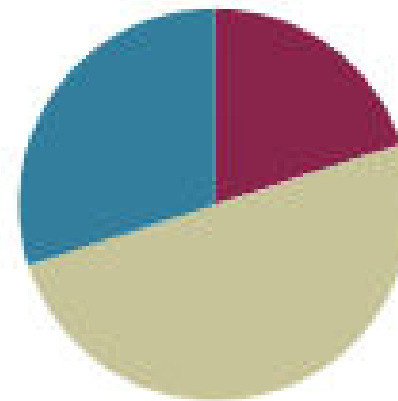
Small Group Time

Lesson 25

Objective: Explore properties of prime and composite numbers to 100 by using multiples.

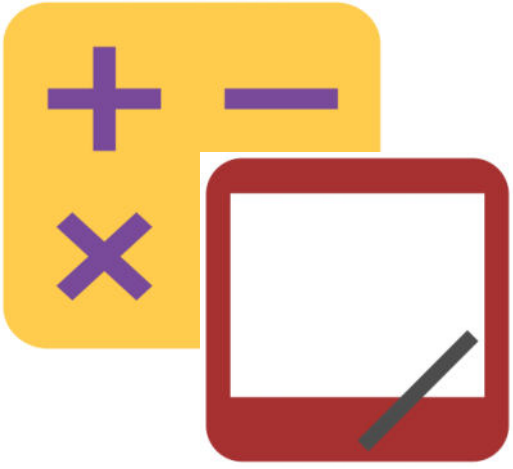
Suggested Lesson Structure

| | |
|-----------------------|---------------------|
| ■ Fluency Practice | (12 minutes) |
| ■ Concept Development | (30 minutes) |
| ■ Student Debrief | (18 minutes) |
| Total Time | (60 minutes) |





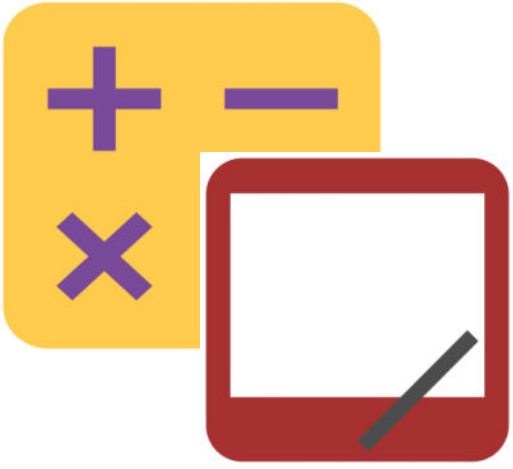
Objective: Explore properties of prime and composite numbers to 100 by using multiples.



Test for Factors

40, 64, 54, 42

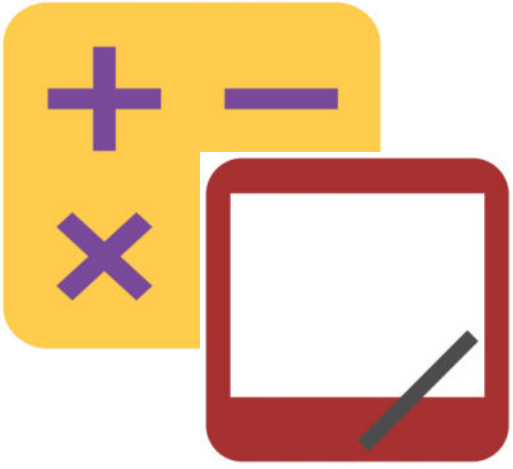
Use division to prove both 4 and 2 are factors of 40.



Test for Factors

40, 64, 54, 42

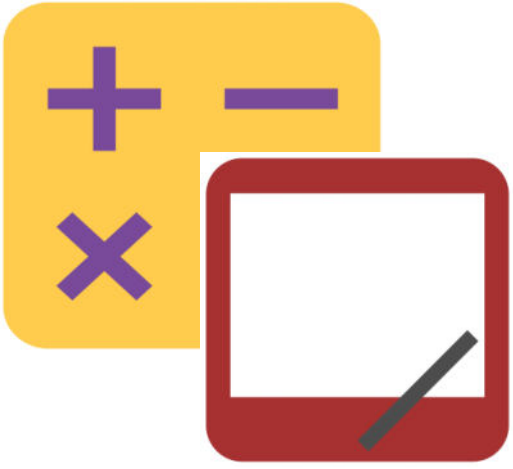
Write the numbers that have 6 as a factor.



Test for Factors

40, 64, 54, 42

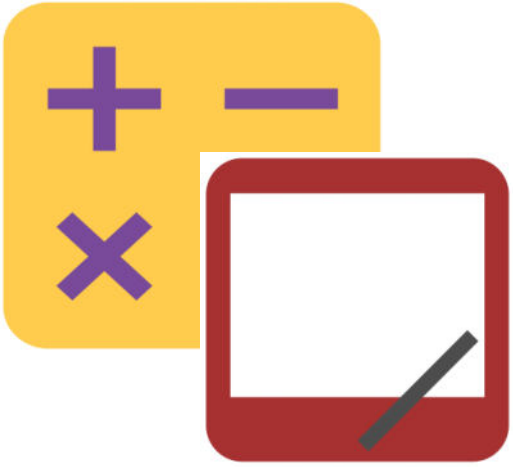
Prove that both 3 and 2 are factors of 54 and 42, using the associative property.



Test for Factors

40, 64, 54, 42

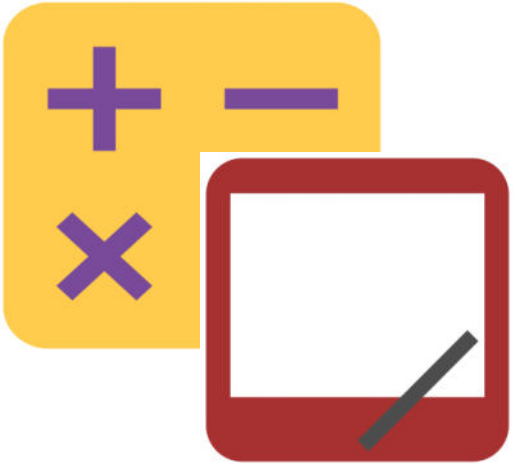
Write the numbers that have 8 as a factor.



Test for Factors

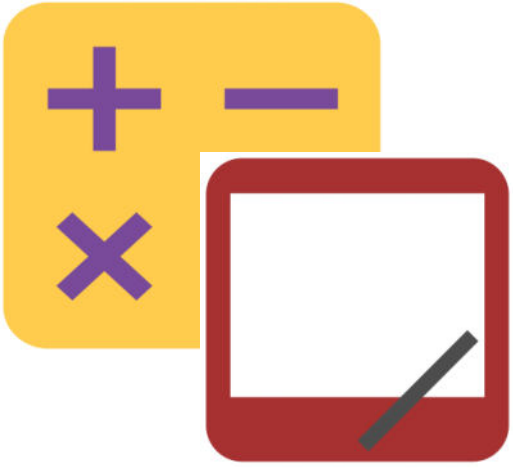
40, 64, 54, 42

Prove that both 4 and 2 are factors of 40 and 64, using the associative property.



Multiples Are Infinite

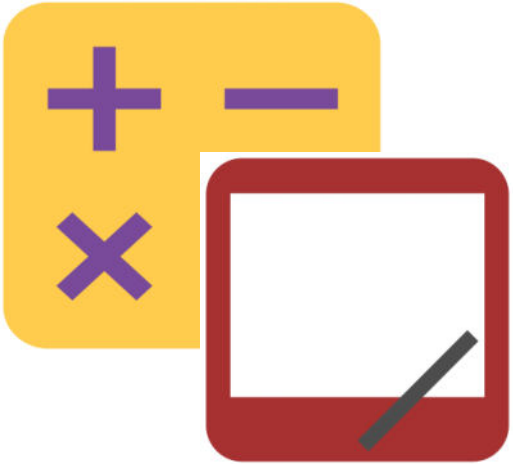
Have students make groups of four. Assign each foursome a different number to count by starting at 0. Allow students two minutes to count round robin in their groups.



Multiples Are Infinite

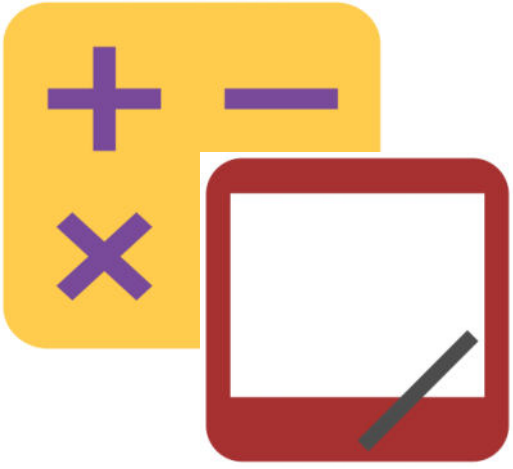
Let's share our results.

Could you have kept counting by
(assigned number) after I told you to
stop?



Multiples Are Infinite

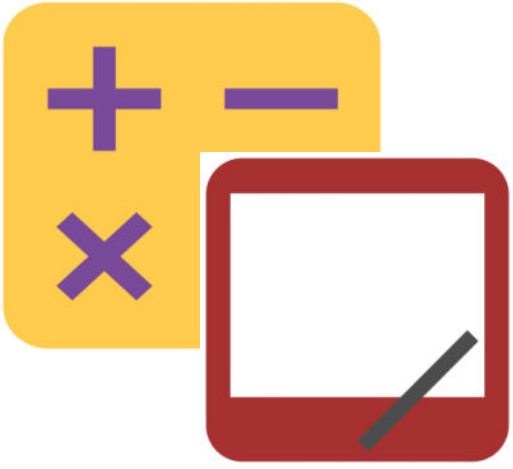
We now know the multiples for any number are infinite—they go on forever. How is that different from the factors of a number? Turn and talk to your partner about this question.



List Multiples and Factors

3

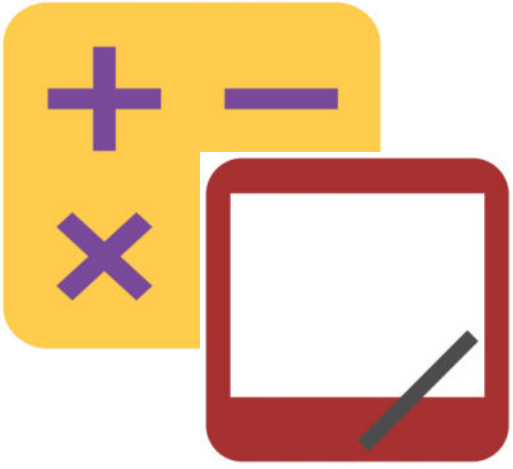
List as many multiples of 3 as you can in the next 20 seconds. Take your mark. Get set. Go.



List Multiples and Factors

3

List the factors of 3.

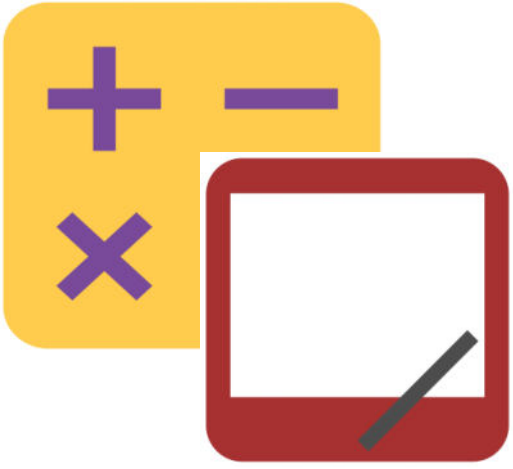


List Multiples and Factors

4

List the first ten multiples of 4.

List the factors of 4



List Multiples and Factors

5

List the first ten multiples of 5.

List the factors of 5

Concept Development

Materials

 (S) Materials: Problem Set, orange crayon, red crayon



Multiples

Let's take a look at the number chart in front of you. What is the smallest prime number you see on the chart?

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |



Multiples

What is the greatest composite number you see? How do you know?

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |



Multiples

Shade the number 1
red.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |



Multiples

Circle the first unmarked number.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |



Multiples

Cross off every multiple of that number except the one you circled.

| | | | | | | | | | |
|----|---|----|---|----|---|----|---|----|---|
| | 2 | 3 | × | 5 | × | 7 | × | 9 | × |
| 11 | × | 13 | × | 15 | × | 17 | × | 19 | × |
| 21 | × | 23 | × | 25 | × | 27 | × | 29 | × |
| 31 | × | 33 | × | 35 | × | 37 | × | 39 | × |
| 41 | × | 43 | × | 45 | × | 47 | × | 49 | × |
| 51 | × | 53 | × | 55 | × | 57 | × | 59 | × |
| 61 | × | 63 | × | 65 | × | 67 | × | 69 | × |
| 71 | × | 73 | × | 75 | × | 77 | × | 79 | × |
| 81 | × | 83 | × | 85 | × | 87 | × | 89 | × |
| 91 | × | 93 | × | 95 | × | 97 | × | 99 | × |



Multiples

- Circle the first unmarked number.
- Cross off every multiple of that number except the one you circled. If it's already crossed off, skip it.
- Repeat Steps (a) and (b) until every number is either circled or crossed off.

| | | | | | | | | | | |
|----|---|----|---|----|---|----|---|----|---|-----|
| | 2 | 3 | X | 5 | X | 7 | X | 9 | X | 10 |
| 11 | X | 13 | X | 15 | X | 17 | X | 19 | X | 20 |
| 21 | X | 23 | X | 25 | X | 27 | X | 29 | X | 30 |
| 31 | X | 33 | X | 35 | X | 37 | X | 39 | X | 40 |
| 41 | X | 43 | X | 45 | X | 47 | X | 49 | X | 50 |
| 51 | X | 53 | X | 55 | X | 57 | X | 59 | X | 60 |
| 61 | X | 63 | X | 65 | X | 67 | X | 69 | X | 70 |
| 71 | X | 73 | X | 75 | X | 77 | X | 79 | X | 80 |
| 81 | X | 83 | X | 85 | X | 87 | X | 89 | X | 90 |
| 91 | X | 93 | X | 95 | X | 97 | X | 99 | X | 100 |



Multiples

a. Circle the first unmarked number.

b. Cross off every multiple of that number except the one you circled. If it's already crossed off, skip it.

c. Repeat Steps (a) and (b) until every number is either circled or crossed off.

| | | | | | | | | | |
|----|---|----|---|---|---|----|---|----|---|
| | 2 | 3 | X | 5 | X | 7 | X | X | X |
| 11 | X | 13 | X | X | X | 17 | X | 19 | X |
| X | X | 23 | X | X | X | X | X | 29 | X |
| 31 | X | X | X | X | X | 37 | X | X | X |
| 41 | X | 43 | X | X | X | 47 | X | X | X |
| X | X | 53 | X | X | X | X | X | 59 | X |
| 61 | X | X | X | X | X | 67 | X | X | X |
| 71 | X | 73 | X | X | X | X | X | 79 | X |
| X | X | 83 | X | X | X | X | X | 89 | X |
| X | X | X | X | X | X | 97 | X | X | X |



Multiples

After you marked off multiples of 7, what was the next number that you circled?

Were there any multiples of 11 that hadn't been crossed out already?

What about 13? Are there any multiples of 13 that still need to be crossed off?

| | | | | | | | | | |
|----|---|----|---|---|---|----|---|----|---|
| | 2 | 3 | X | 5 | X | 7 | X | X | X |
| 11 | X | 13 | X | X | X | 17 | X | 19 | X |
| X | X | 23 | X | X | X | X | X | 29 | X |
| 31 | X | X | X | X | X | 37 | X | X | X |
| 41 | X | 43 | X | X | X | 47 | X | X | X |
| X | X | 53 | X | X | X | X | X | 59 | X |
| 61 | X | X | X | X | X | 67 | X | X | X |
| 71 | X | 73 | X | X | X | X | X | 79 | X |
| X | X | 83 | X | X | X | X | X | 89 | X |
| X | X | X | X | X | X | 97 | X | X | X |



Multiples

I wonder if that's true of the rest? Go back to 11. Let's see if we can figure out what happened. Count by elevens within 100 using the chart.

So, by the time we circled 11, is it true that we'd already marked all of the multiples of 2, 3, all the way up to 10?

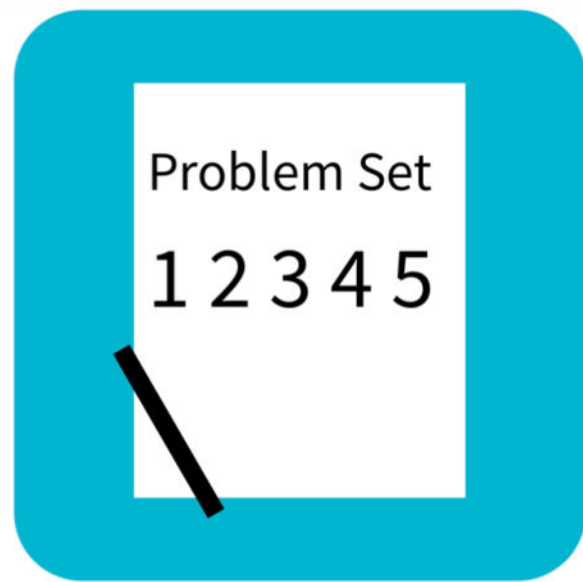
| | | | | | | | | | |
|----|---|----|---|---|---|----|---|----|---|
| | 2 | 3 | X | 5 | X | 7 | X | X | X |
| 11 | X | 13 | X | X | X | 17 | X | 19 | X |
| X | X | 23 | X | X | X | X | X | 29 | X |
| 31 | X | X | X | X | X | 37 | X | X | X |
| 41 | X | 43 | X | X | X | 47 | X | X | X |
| X | X | 53 | X | X | X | X | X | 59 | X |
| 61 | X | X | X | X | X | 67 | X | X | X |
| 71 | X | 73 | X | X | X | X | X | 79 | X |
| X | X | 83 | X | X | X | X | X | 89 | X |
| X | X | X | X | X | X | 97 | X | X | X |



Multiples

Take a moment to figure out how many multiples of 13 are within 100.

| | | | | | | | | | |
|----|---|----|---|---|---|----|---|----|---|
| | 2 | 3 | ✖ | 5 | ✖ | 7 | ✖ | ✖ | ✖ |
| 11 | ✖ | 13 | ✖ | ✖ | ✖ | 17 | ✖ | 19 | ✖ |
| ✖ | ✖ | 23 | ✖ | ✖ | ✖ | ✖ | ✖ | 29 | ✖ |
| 31 | ✖ | ✖ | ✖ | ✖ | ✖ | 37 | ✖ | ✖ | ✖ |
| 41 | ✖ | 43 | ✖ | ✖ | ✖ | 47 | ✖ | ✖ | ✖ |
| ✖ | ✖ | 53 | ✖ | ✖ | ✖ | ✖ | ✖ | 59 | ✖ |
| 61 | ✖ | ✖ | ✖ | ✖ | ✖ | 67 | ✖ | ✖ | ✖ |
| 71 | ✖ | 73 | ✖ | ✖ | ✖ | ✖ | ✖ | 79 | ✖ |
| ✖ | ✖ | 83 | ✖ | ✖ | ✖ | ✖ | ✖ | 89 | ✖ |
| ✖ | ✖ | ✖ | ✖ | ✖ | ✖ | 97 | ✖ | ✖ | ✖ |



Problem Set

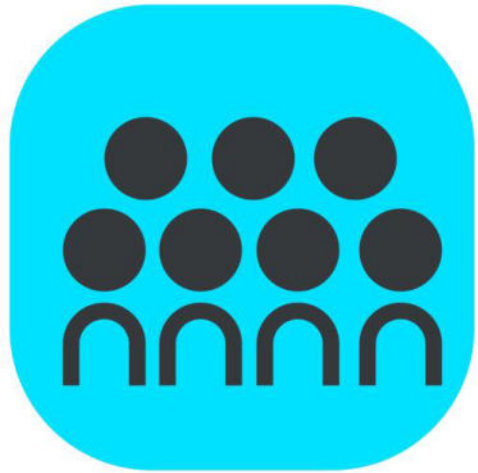
2. a. List the circled numbers.

b. Why were the circled numbers not crossed off along the way?

Debrief

Participate in the discussion by...

- Thinking about the question.
- Sharing your work.
- Explaining your strategy.
- Listening to others.



Debrief

- Which numbers are circled? Which numbers are crossed out?
- We started this Problem Set by coloring number 1 red and beginning our work with the multiples of 2. Why didn't we cross out the multiples of 1?
- Are any prime numbers even? Are all odd numbers prime?
- We crossed off multiples of 2, 3, 5, and 7. Why didn't we have to cross off multiples of 4 or 6?
- How did you know some of the larger numbers, like 53 and 79, were prime?

Exit Ticket

Name _____

Date _____

Use the calendar below to complete the following:

1. Cross off all composite numbers.
2. Circle all of the prime numbers.
3. List any remaining numbers.

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |