EUREKA MATH

Grade 2 • MODULE 3

Place Value, Counting, and Comparison of Numbers to 1,000

Problem Sets

Video tutorials: http://embarc.online

Version 3

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GRADE 2 • MODULE 3

Place Value, Counting, and Comparison of Numbers to 1,000

> **NOTE: Student sheets should be printed at 100% scale to preserve the intended size of figures for accurate measurements. Adjust copier or printer settings to *actual size* and set page scaling to *none*.**

Name _____   Date _____
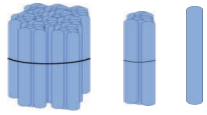
Draw models of ones, tens, and hundreds. Your teacher will tell you which numbers to model.

Lesson 1:   Bundle and count ones, tens, and hundreds to 1,000.

1

Name _____   Date _____

1. Draw, label, and box 100. Draw pictures of the units you use to count from 100 to 124.

2. Draw, label, and box 124. Draw pictures of the units you use to count from 124 to 220.

Lesson 2:   Count up and down between 100 and 220 using ones and tens.

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3. Draw, label, and box 85. Draw pictures of the units you use to count from 85 to 120.

4. Draw, label, and box 120. Draw pictures of the units you use to count from 120 to 193.

Lesson 2:   Count up and down between 100 and 220 using ones and tens.

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Name _____   Date _____

1. Draw, label, and box 90. Draw pictures of the units you use to count from 90 to 300.

2. Draw, label, and box 300. Draw pictures of the units you use to count from 300 to 428.

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Lesson 3:   Count up and down between 90 and 1,000 using ones, tens, and hundreds.

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3. Draw, label, and box 428. Draw pictures of the units you use to count from 428 to 600.

4. Draw, label, and box 600. Draw pictures of the units you use to count from 600 to 1,000.

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Name _____   Date _____

Work with your partner. Imagine your place value chart. Write down how you might count from the first number up to the second number. Underline the numbers where you bundled to make a larger unit.

1. 476 to 600

2. 47 to 200

3. 188 to 510

4. 389 to 801

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Name _____   Date _____

Your teacher will tell you a number to write in each box. In a whisper voice, say each number in word form. Use number bonds to show how many ones, tens, and hundreds are in the number.

Lesson 5:   Write base ten three-digit numbers in unit form; show the value of each digit.

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Name _____   Date _____

Write each number in expanded form, separating the total value of each of the units.

1. 231	2. 312
3. 527	4. 752
5. 201	6. 310
7. 507	8. 750

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Write the answer in number form.

9. $2 + 30 + 100 =$

10. $300 + 2 + 10 =$

11. $50 + 200 + 7 =$

12. $70 + 500 + 2 =$

13. $1 + 200 =$

14. $100 + 3 =$

15. $700 + 5 =$

16. $7 + 500 =$

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Name _____   Date _____

Spell Numbers: How many can you write correctly in 2 minutes?

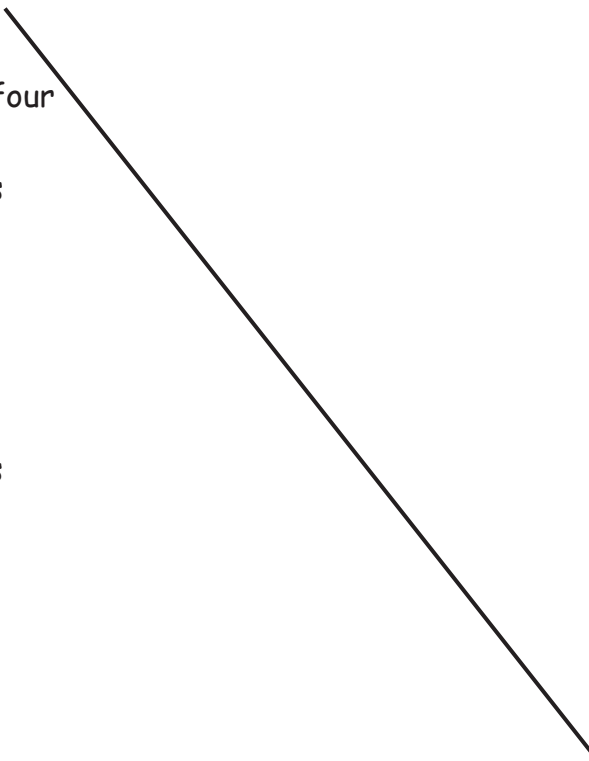|					
1		11		10	
2		12		20	
3		13		30	
4		14		40	
5		15		50	
6		16		60	
7		17		70	
8		18		80	
9		19		90	
10		20		100	

number spelling activity sheet

![EUREKA MATH logo] **Lesson 7:**   Write, read, and relate base ten numbers in all forms.   **27**

Name _____   Date _____

Match Part 1

Match the word form or unit form with standard form. Problem A is done for you as an example.

a. Two hundred thirty-four   • 204

b. Three hundred seventy-four   • 930

c. 7 hundreds 6 tens 3 ones   • 470

d. Two hundred four   • 763

e. Four hundred two   • 650

f. 3 ones 7 hundreds 4 tens   • 903

g. Four hundred seventy   • 123

h. 9 hundreds 3 ones   • 673

i. 3 ones 7 tens 6 hundreds   • 234

j. 1 ten 2 hundreds 3 ones   • 374

k. 5 tens 6 hundreds   • 402

l. Nine hundred thirty   • 743

m. 12 tens 3 ones   • 213

Match Part 2

Match all the ways of expressing each number.

a. 500 + 9

b. 4 hundreds + 34 ones

c. 60 + 800 + 3   ● 434

d. 9 + 500

e. Eight hundred sixty-three

f. 9 ones + 50 tens   ● 863

g. Four hundred thirty-four

h. 86 tens + 3 ones

i. 400 + 4 + 30   ● 509

j. 6 tens + 8 hundreds + 3 ones

k. Five hundred nine

l. 4 ones + 43 tens

Name _____   Date _____

Show each amount of money using 10 bills: $100, $10, and $1 bills. Whisper and write each amount of money in expanded form. Write the total value of each set of bills as a number bond.

10 Bills

1.

$136 = _____

2.

_____ = $451

3.

$190 = _____

4.

_____ = $109

5.

$460 = _____

6.

_____ = $406

7.

$550 = _____

8.

_____ = $541

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Lesson 8:   Count the total value of $1, $10, and $100 bills up to $1,000.

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9.

$901 = _____

10.

_____ = $910

11.

$1,000 = _____

12.

_____ = $100

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Lesson 8:   Count the total value of $1, $10, and $100 bills up to $1,000.

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Name _____   Date _____

First, model the count using ones, tens, and hundreds on your place value chart. Then, record your count on the empty number line.

Empty Number Lines

1. 70 to 300

⟵──────────────────────────────⟶

2. 300 to 450

⟵──────────────────────────────⟶

3. 160 to 700

⟵──────────────────────────────⟶

4. 700 to 870

⟵──────────────────────────────⟶

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5. 68 to 200

6. 200 to 425

7. 486 to 700

8. 700 to 982

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Lesson 9: Count from $10 to $1,000 on the place value chart and the empty number line.

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Name _____   Date _____

Jerry wonders, "How many $10 bills are equal to a $1,000 bill?"

Work with your partner to answer Jerry's question. Explain your solution using words, pictures, or numbers. Ask yourselves: Can I draw something? What can I draw? What can I learn from my drawing? Remember to write your answer as a statement.

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Lesson 10:   Explore $1,000. How many $10 bills can we change for a thousand dollar bill?

42

Name _____   Date _____

1. Model the numbers on your place value chart using the fewest number of blocks or disks possible.

   Partner A, use base ten blocks.
   Partner B, use place value disks.
   Compare the way your numbers look.
   Whisper the numbers in standard form and unit form.

   a. 12

   b. 124

   c. 104

   d. 299

   e. 200

2. Take turns using the place value disks to model the following numbers using the fewest place value disks possible. Whisper the numbers in standard form and unit form.

   a. 25   f. 36

   b. 250   g. 360

   c. 520   h. 630

   d. 502   i. 603

   e. 205   j. 306

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Name _____   Date _____

Count from **582 to 700** using place value disks. Change for a larger unit when necessary.

When you counted from **582 to 700**:

Did you make a larger unit at…	**Yes,** I changed to make:	**No,** I need _____
1. 590?	1 ten 1 hundred	___ ones. ___ tens.
2. 600?	1 ten 1 hundred	___ ones. ___ tens.
3. 618?	1 ten 1 hundred	___ ones. ___ tens.
4. 640?	1 ten 1 hundred	___ ones. ___ tens.
5. 652?	1 ten 1 hundred	___ ones. ___ tens.
6. 700?	1 ten 1 hundred	___ ones. ___ tens.

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Lesson 12:   Change 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand.

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Name _____   Date _____

Draw place value disks to show the numbers.

1. 72

2. 427

3. 713

4. 171

5. 187

6. 705

When you have finished, use your whisper voice to read each number out loud in both unit and word form. How much does each number need to change for a ten?
For 1 hundred?

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Lesson 13:   Read and write numbers within 1,000 after modeling with place value disks.

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Name _____ Date _____

1. Whisper count as you show the numbers with place value disks.

    a.

Draw 18 using tens and ones.

Draw 18 using **only** ones.

    b.

Draw 315 using hundreds, tens, and ones.

Draw 315 using **only** hundreds and ones.

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Lesson 14: Model numbers with more than 9 ones or 9 tens; write in expanded, unit, standard, and word forms.

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c.

| Draw 206 using hundreds, tens, and ones. | Draw 206 using **only** tens and ones. |

2. Whisper-talk the numbers and words as you fill in the blanks. Start by using the place value charts from Problem 1 to help you.

a. 18 = _____ hundreds _____ tens _____ ones

18 = _____ ones

b. 315 = _____ hundreds _____ tens _____ ones

315 = _____ hundreds _____ ones

c. 206 = _____ hundreds _____ tens _____ ones

206 = _____ tens _____ ones

d. 419 = _____ hundreds _____ tens _____ ones

419 = _____ tens _____ ones

e. 570 = _____ hundreds _____ tens

570 = _____ tens

f. 748 = _____ hundreds _____ ones

748 = _____ tens _____ ones

g. 909 = _____ hundreds _____ ones

909 = _____ tens _____ ones

3. Mr. Hernandez's class wants to trade 400 tens rods for hundreds flats with Mr. Harrington's class. How many hundreds flats are equal to 400 tens rods?

EUREKA MATH   **Lesson 14:**   Model numbers with more than 9 ones or 9 tens; write in expanded,   **53**
                              unit, standard, and word forms.

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Names _____ and _____ Date _____

Pencils come in boxes of 10.

There are 14 boxes.

1. How many pencils are there in all? Explain your answer using words, pictures, or numbers.

2. The principal wants to have 300 pencils for the second graders for October, November, and December. How many more boxes of pencils does he need? Explain your answer using words, pictures, or numbers.

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3. The principal found 7 boxes in the supply closet and 4 boxes in a desk drawer. Now does he have what he wants for the second graders? Explain your answer using words, pictures, or numbers.

4. How many boxes of pencils do you think your class will need for January, February, March, and April? How many pencils is that? Explain your answer using words, pictures, or numbers.

Name _____   Date _____

1. Draw the following numbers using place value disks on the place value charts. Answer the questions below.

    a. 132   b. 312   c. 213

    d. Which is the greatest number? _____

    e. Which is the least number? _____

    f. Order the numbers from least to greatest: _____, _____, _____

2. Circle *less than* or *greater than*. Whisper the complete sentence.

a. 97 is less than / greater than 102.	f. 361 is less than / greater than 367.
b. 184 is less than / greater than 159.	g. 705 is less than / greater than 698.
c. 213 is less than / greater than 206.	h. 465 is less than / greater than 456.
d. 299 is less than / greater than 300.	i. 100 + 30 + 8 is less than / greater than 183.
e. 523 is less than / greater than 543.	j. 3 tens and 5 ones is less than / greater than 32.

3. Write >, <, or =. Whisper the complete number sentences as you work.

a. 900 ◯ 899

b. 267 ◯ 269

c. 537 ◯ 527

d. 419 ◯ 491

e. 908 ◯ nine hundred eighty

f. 130 ◯ 80 + 40

g. Two hundred seventy-one ◯ 70 + 200 + 1

h. 500 + 40 ◯ 504

i. 10 tens ◯ 101

j. 4 tens 2 ones ◯ 30 + 12

k. 36 – 10 ◯ 2 tens 5 ones

4. Noah and Charlie have a problem.

Noah thinks 42 tens is <u>less than</u> 390.

Charlie thinks 42 tens is <u>greater than</u> 390.

Who is correct? Explain your thinking below.

_____

_____

_____

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Name _____   Date _____

1. Whisper count as you show the numbers with place value disks. Circle >, <, or =.

   a. Draw 217 using hundreds, tens, and ones.

   b. Draw 21 tens and 7 ones.

   <
   =
   >

   c. Draw 1 hundred and 17 ones.

   d. Draw 1 hundred 1 ten and 7 ones.

   <
   =
   >

Lesson 17:   Compare two three-digit numbers using <, >, and = when there are
more than 9 ones or 9 tens.

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2. Circle less than (<), equal to (=), or greater than (>). Whisper the complete sentence.

   a. 9 tens is _____ 88.

   b. 132 is _____ 13 tens 2 ones.

less than
equal to
greater than

less than
equal to
greater than

   c. 102 is _____ 15 tens 2 ones.

   d. 199 is _____ 20 tens

less than
equal to
greater than

less than
equal to
greater than

   e. 62 tens 3 ones is | < = > | 623.

   f. 80 + 700 + 2 is | < = > | eight hundred seventy-two.

   g. 8 + 600 is | < = > | 68 tens.

   h. Seven hundred thirteen is | < = > | 47 tens + 23 tens.

   i. 18 tens + 4 tens is | < = > | 29 tens – 5 tens.

   j. 300 + 40 + 9 is | < = > | 34 tens.

Lesson 17: Compare two three-digit numbers using <, >, and = when there are more than 9 ones or 9 tens.

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3. Write >, <, or =.

   a. 99 ◯ 10 tens

   b. 116 ◯ 11 tens 5 ones

   c. 2 hundreds 37 ones ◯ 237

   d. Three hundred twenty ◯ 34 tens

   e. 5 hundreds 2 tens 4 ones ◯ 53 tens

   f. 104 ◯ 1 hundred 4 tens

   g. 40 + 9 + 600 ◯ 9 ones 64 tens

   h. 700 + 4 ◯ 74 tens

   i. Twenty-two tens ◯ Two hundreds twelve ones

   j. 7 + 400 + 20 ◯ 42 tens 7 ones

   k. 5 hundreds 24 ones ◯ 400 + 2 + 50

   l. 69 tens + 2 tens ◯ 710

   m. 20 tens ◯ two hundred ten ones

   n. 72 tens – 12 tens ◯ 60

   o. 84 tens + 10 tens ◯ 9 hundreds 4 ones

   p. 3 hundreds 21 ones ◯ 18 tens + 14 tens

Lesson 17: Compare two three-digit numbers using <, >, and = when there are more than 9 ones or 9 tens.

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Name _____   Date _____

1. Draw the following values on the place value charts as you think best.

   a. 1 hundred 19 ones

   b. 3 ones 12 tens

   c. 120

   d. Order the numbers from least to greatest: _____, _____, _____

2. Order the following from least to greatest in standard form.

   a. 436   297   805   _____, _____, _____

   b. 317   three hundred seventy   307   _____, _____, _____

   c. 826   2 + 600 + 80   200 + 60 + 8   _____, _____, _____

   d. 5 hundreds 9 ones   51 tens 9 ones   591 _____, _____, _____

   e. 16 ones 7 hundreds   6 + 700 + 10   716 _____, _____, _____

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Lesson 18:   Order numbers in different forms. (Optional)

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3. Order the following from greatest to least in standard form.

a. 731   598   802   _____, _____, _____

b. 82 tens   eight hundreds twelve ones   128   _____, _____, _____

c. 30 + 3 + 300   30 tens 3 ones   300 + 30   _____, _____, _____

d. 4 ones 1 hundred   4 tens + 10 tens   114   _____, _____, _____

e. 19 ones 6 hundreds   196   90 + 1 + 600   _____, _____, _____

4. Write >, <, or =. Whisper the complete number sentences as you work.

a. 700 $\bigcirc$ 599 $\bigcirc$ 388

b. four hundred nine $\bigcirc$ 9 + 400 $\bigcirc$ 490

c. 63 tens + 9 tens $\bigcirc$ seven hundred twenty $\bigcirc$ 720

d. 12 ones 8 hundreds $\bigcirc$ 2 + 80 + 100 $\bigcirc$ 128

e. 9 hundreds 3 ones $\bigcirc$ 390 $\bigcirc$ three hundred nine

f. 80 tens + 2 tens $\bigcirc$ 837 $\bigcirc$ 3 + 70 + 800

Lesson 18:   Order numbers in different forms. (Optional)

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Name _____ Date _____

1. Model each change on your place value chart. Then, fill in the chart.
   Whisper the complete sentence: "_____ more/less than _____ is _____."

	242	153	312	465
100 more				
100 less				
10 more				
10 less				
1 more				
1 less				

2. Fill in the blanks. Whisper the complete sentence.

   a. 1 more than 314 is _____.

   b. 10 more than 428 is _____.

   c. 100 less than 635 is _____.

   d. _____ more than 243 is 343.

   e. _____ less than 578 is 568.

   f. _____ less than 199 is 198.

   g. 1 more than _____ is 405.

   h. 10 less than _____ is 372.

   i. 100 less than _____ is 739.

   j. 10 more than _____ is 946.

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Lesson 19: Model and use language to tell about 1 more and 1 less, 10 more and 10 less, and 100 more and 100 less.

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3. Whisper the numbers as you count:

   a. Count by 1s from 367 to 375.

   b. Skip-count by 10s from 422 to 492.

   c. Skip-count by 100s from 156 to 856.

   d. Count by 1s from 269 to 261.

   e. Skip-count by 10s from 581 to 511.

   f. Skip-count by 100s from 914 to 314.

   g. I found letter _____ to be challenging because _____

   _____.

4. My starting number is 217.

   I skip-count up by 100s seven times.

   What is the last number I count?

   Explain your thinking below.

Name _____ Date _____

1. Model each problem with a partner on your place value chart. Then, fill in the blanks, and circle all that apply. Explain your thinking.

   a. 1 more than 39 is _____.

   | one |
   | ten |
   | hundred |

        We made a _____.

   b. 10 more than 190 is _____.

   | one |
   | ten |
   | hundred |

        We made a _____.

   c. 10 more than 390 is _____.

   | one |
   | ten |
   | hundred |

        We made a _____.

   d. 1 more than 299 is _____.

   | one |
   | ten |
   | hundred |

        We made a _____.

   e. 10 more than 790 is _____.

   | one |
   | ten |
   | hundred |

        We made a _____.

2. Fill in the blanks. Whisper the complete sentence.

   a. 1 less than 120 is _____.

   b. 10 more than 296 is _____.

   c. 100 less than 229 is _____.

   d. _____ more than 598 is 608.

   e. _____ more than 839 is 840.

   f. _____ less than 938 is 838.

   g. 10 more than _____ is 306.

   h. 100 less than _____ is 894.

   i. 10 less than _____ is 895.

   j. 1 more than _____ is 1,000.

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Lesson 20:   Model 1 more and 1 less, 10 more and 10 less, and 100 more and 100 less when changing the hundreds place.

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3. Whisper the numbers as you count:

    a. Count by 1s from 106 to 115.

    b. Count by 10s from 467 to 527.

    c. Count by 100s from 342 to 942.

    d. Count by 1s from 325 to 318.

    e. Skip-count by 10s from 888 to 808.

    f. Skip-count by 100s from 805 to 5.

4. Jenny loves jumping rope.

    Each time she jumps, she skip-counts by 10s.

    She starts her first jump at 77, her favorite number.

    How many times does Jenny have to jump to get to 147?

    Explain your thinking below.

Lesson 20:   Model 1 more and 1 less, 10 more and 10 less, and 100 more and 100 less when changing the hundreds place.

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Name _____ Date _____

1. Whisper the numbers as you count:

   a. Count by 1s from 326 to 334.

   b. Skip-count by 10s from 472 to 532.

   c. Skip-count by 10s from 930 to 860.

   d. Skip-count by 100s from 708 to 108.

2. Find the pattern. Fill in the blanks.

   a. 297, 298, _____, _____, _____, _____

   b. 143, 133, _____, _____, _____, _____

   c. 357, 457, _____, _____, _____, _____

   d. 578, 588, _____, _____, _____, _____

   e. 132, _____, 134, _____, _____, 137

   f. 409, _____, _____, 709, 809, _____
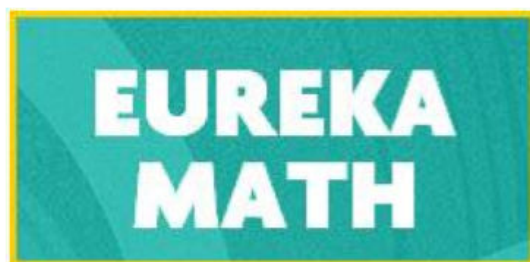
   g. 210, _____, 190, _____, _____, 160, 150

3. Fill in the charts.

a.

72	73			76

			85	

		94			97

			106	

	115		

b.

345	346		

	354	

		366	

	377		

		385	

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