A   # Correct _____

Fill-in the missing number.

1	0 +	=	10	23	13 +	= 20
2	9 +	=	10	24	23 +	= 30
3	8 +	=	10	25	27 +	= 30
4	7 +	=	10	26	5 +	= 10
5	6 +	=	10	27	25 +	= 30
6	5 +	=	10	28	2 +	= 10
7	1 +	=	10	29	22 +	= 30
8	2 +	=	10	30	12 +	= 30
9	3 +	=	10	31	1 +	= 10
10	4 +	=	10	32	11 +	= 20
11	10 +	=	10	33	21 +	= 30
12	9 +	=	10	34	31 +	= 40
13	19 +	=	20	35	38 +	= 40
14	5 +	=	10	36	36 +	= 40
15	15 +	=	20	37	39 +	= 40
16	8 +	=	10	38	35 +	= 40
17	18 +	=	20	39	+ 6	= 30
18	6 +	=	10	40	+ 8	= 20
19	16 +	=	20	41	+ 7	= 40
20	7 +	=	10	42	+ 6	= 20
21	17 +	=	20	43	+ 4	= 30
22	3 +	=	10	44	+ 8	= 40

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COMMON CORE

Lesson 3:

Date:

Apply concepts to create unit rulers, measure lengths using unit rulers.

10/18/13

engage^{ny} 2.A.29

B

Improvement _____   # Correct _____

Fill-in the missing number.

1	10 +	=	10	23	14 +	=	20
2	9 +	=	10	24	24 +	=	30
3	8 +	=	10	25	26 +	=	30
4	7 +	=	10	26	9 +	=	10
5	6 +	=	10	27	29 +	=	30
6	5 +	=	10	28	3 +	=	10
7	1 +	=	10	29	23 +	=	30
8	2 +	=	10	30	12 +	=	30
9	3 +	=	10	31	2 +	=	10
10	4 +	=	10	32	12 +	=	20
11	0 +	=	10	33	22 +	=	30
12	5 +	=	10	34	32 +	=	40
13	15 +	=	20	35	37 +	=	40
14	9 +	=	10	36	34 +	=	40
15	19 +	=	20	37	35 +	=	40
16	8 +	=	10	38	39 +	=	40
17	18 +	=	20	39	+ 4	=	30
18	7 +	=	10	40	+ 9	=	20
19	17 +	=	20	41	+ 4	=	40
20	6 +	=	10	42	+ 7	=	20
21	16 +	=	20	43	+ 3	=	30
22	4 +	=	10	44	+ 9	=	40

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engage^ny   2.A.30
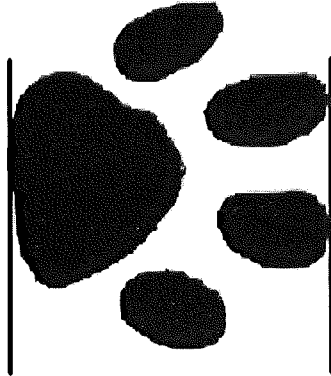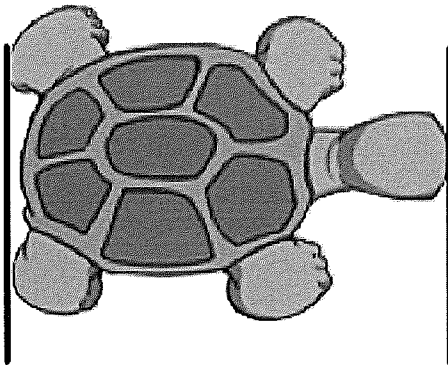
Name _____   Date _____

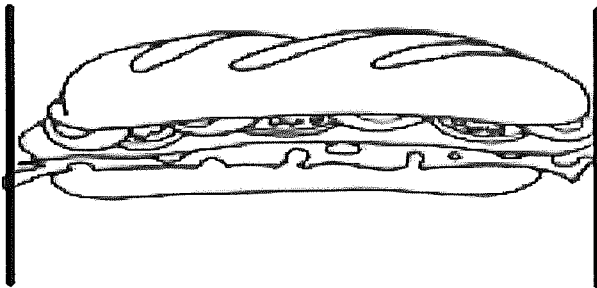Use your centimeter ruler to measure the length of the objects below.

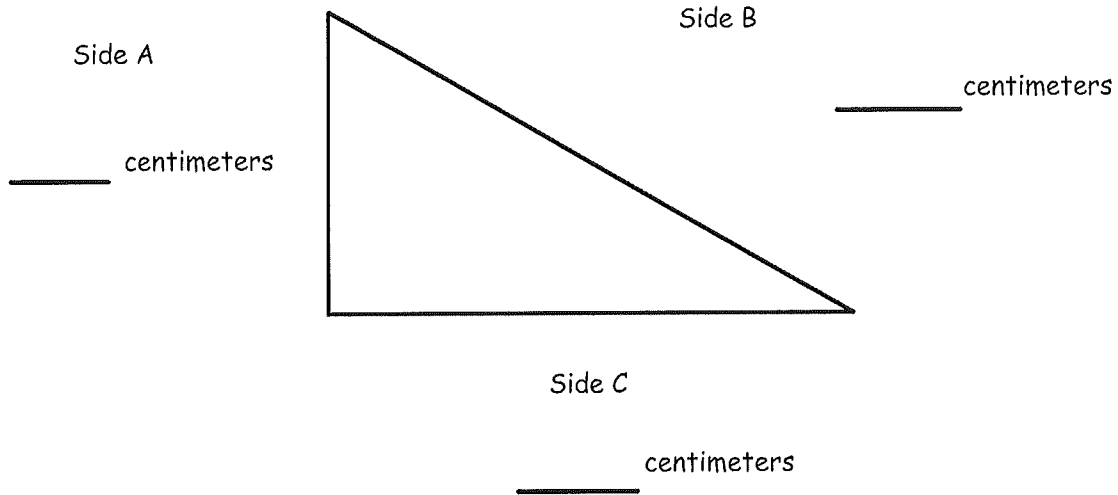1. The picture of the animal track is about _____ cm long.

2. The picture of the turtle is about _____ cm long.

3. The picture of the sandwich is about _____ cm long.

4. Measure and label the length of each side of the triangle using your ruler.

Side A

_____ centimeters

Side B

_____ centimeters

Side C

_____ centimeters

a. Which side is the shortest?   Side A   Side B   Side C

b. What is the length of Sides A and B together? _____ centimeters.

c. How much shorter is Side C than Side B? _____ centimeters.

Lesson 3:   Apply concepts to create unit rulers, measure lengths using unit
rulers.
Date: 10/18/13

engage^ny   2.A.32

COMMON
CORE

Name _____   Date _____

1. Use your centimeter ruler. What is the length in centimeters of each line?

    a. Line a is _____cm long.

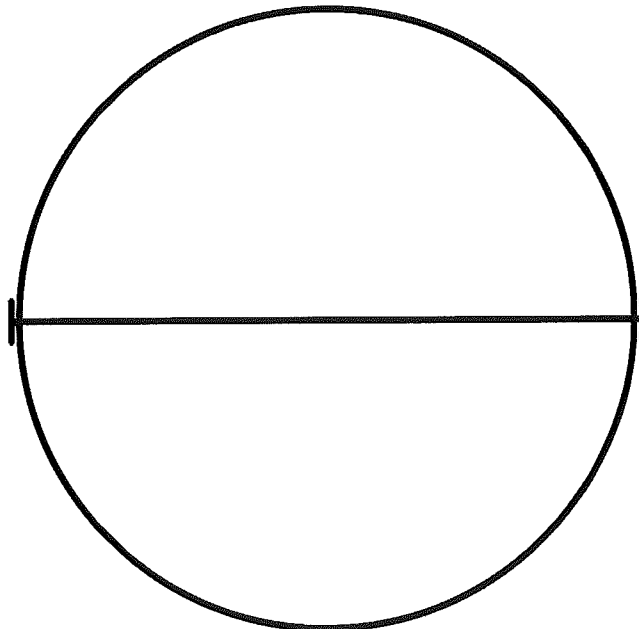   Line a   _____

    b. Line b is _____cm long.

       Line b   _____

    c. Line c is _____cm long.

       Line c   _____

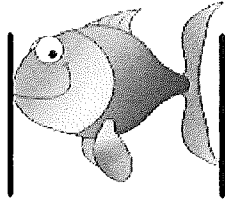2. Find the length across the center of the circle.

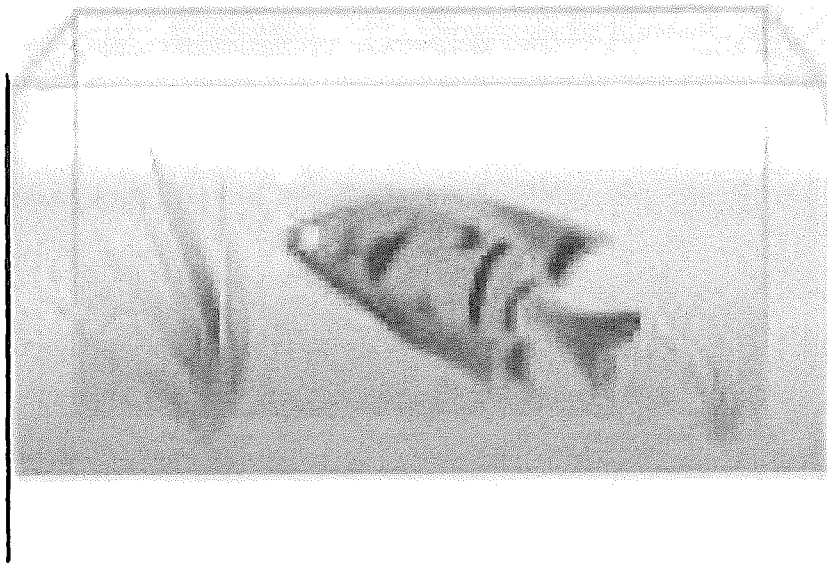The length across the circle is _____ cm.

Name _____   Date _____

Measure the lengths of the objects with the centimeter ruler you made in class.
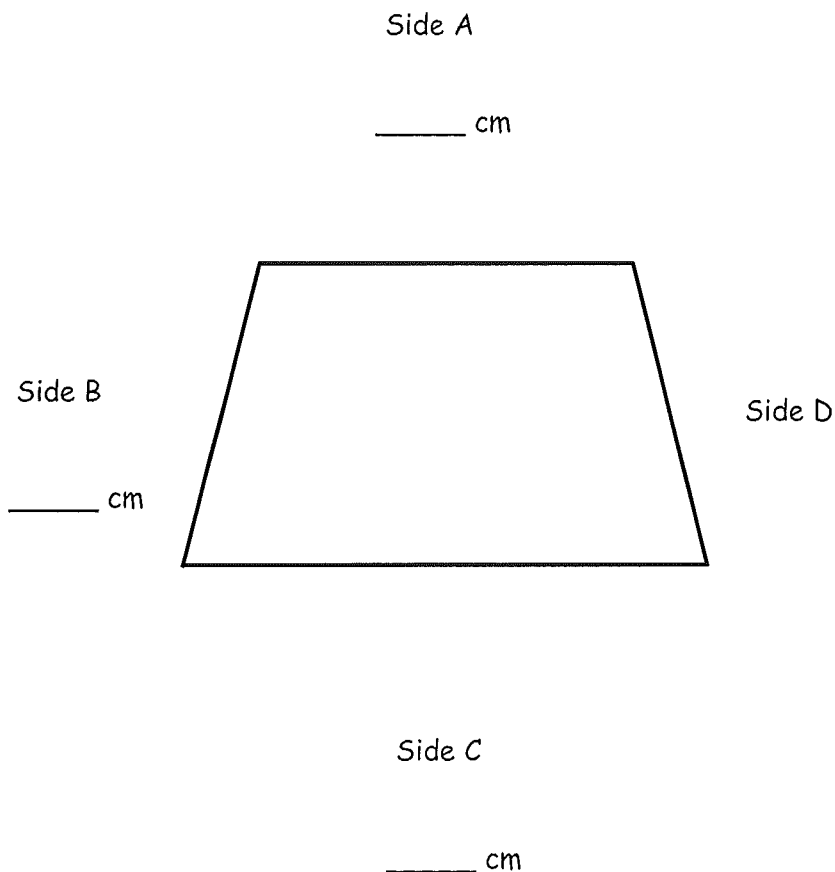
1. The picture of the fish is _____ cm long.

2. The picture of the fish tank is _____ cm long.

3. The picture of the fish tank is _____cm longer than the picture of the fish.

4. Measure the lengths of sides A, B, and C. Write their length on the line.

Side A

_____ cm

Side B

_____ cm

Side D

Side C

_____ cm

a. Which side is the longest?   Side A   Side B   Side C

b. How much longer is Side A than Side B? _____ cm longer.

c. How much shorter is Side A than Side C? _____ cm shorter.

d. Sides B and D are the same length. What is the length of Sides B and D together?

_____ cm.

e. What is the total length of all four sides of this figure? _____ cm.

3. Use a centimeter ruler to find the length (from one hash mark to the next) of each object.
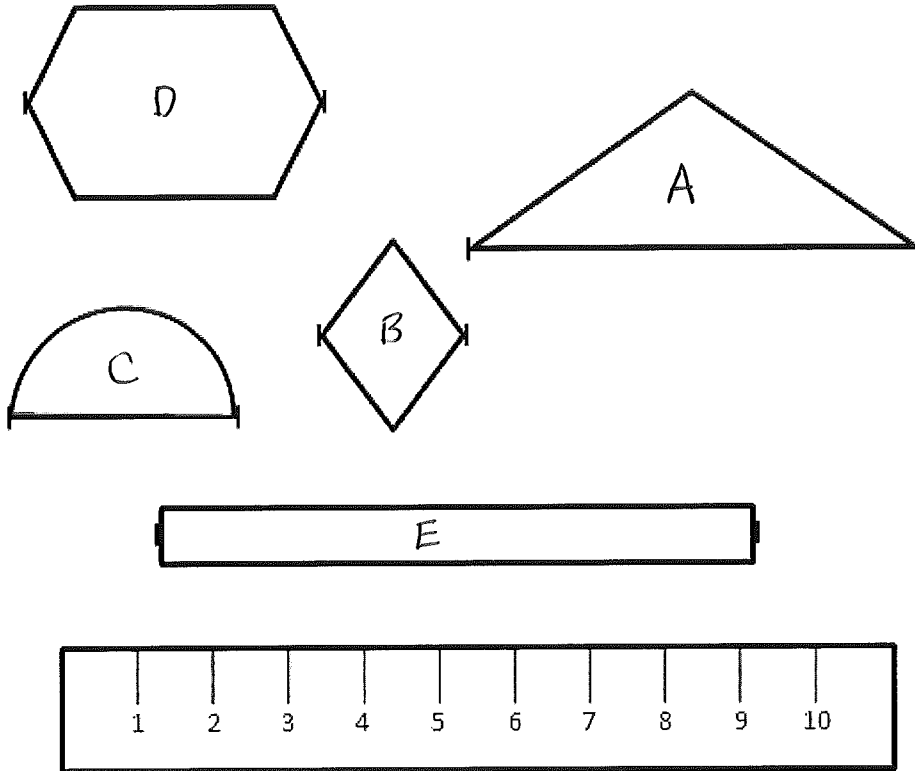
a. Triangle A is _____ cm long.

Semi-circle C is _____ cm long.   Hexagon D is _____ cm long.

Rectangle E is _____ cm long.

b. Explain how the strategy to find the length of each shape above is different than how you would find the length if you used a centimeter cube.

_____

_____

Name _____   Date _____

First estimate the length of each line in centimeters using mental benchmarks.
Then measure each line with a cm ruler to find the actual length.

1. _____

    a. Estimate: _____ cm
    b. Actual length: _____ cm

2. _____

    a. Estimate: _____ cm
    b. Actual length: _____ cm

3. _____

    a. Estimate: _____ cm
    b. Actual length: _____ cm

4. _____

    a. Estimate: _____ cm
    b. Actual length: _____ cm

Name _____   Date _____

Measure each set of lines in centimeters write the length on the line. Complete the comparison sentence.

1. Line A ————————————————————————————

Line B ————————————————

Line A measured about _____ cm.   Line B measured about _____ cm.

Line A is about _____ cm longer than Line B.

2. Line C   ————————————————————————

Line D   ————————————————————————

Line C measured about _____ cm.   Line D measured about _____ cm.

Line C is about _____ cm shorter than Line D.

3. Line E ——————————————

Line F   ——————————————————————

Line G   ————————————————————————

Line E measured about _____ cm.   Line F measured about _____ cm.

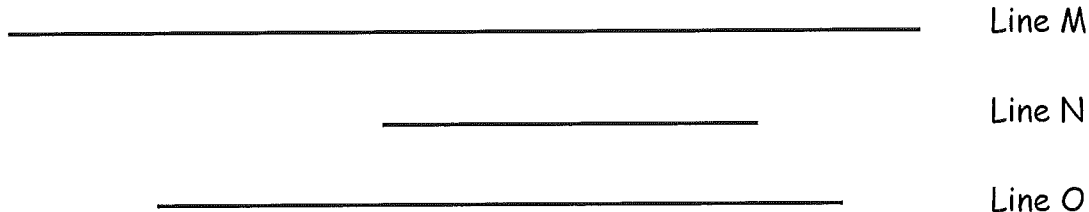Line G measured about _____ cm.   Lines E, F, and G are about_____ cm combined.

Line E is about _____ cm shorter than Line F.

Line E is about _____cm shorter than Line G.

Name _____   Date _____

1. Measure the length of each line and compare.

   _____   Line M

               _____   Line N

          _____   Line O

   Line M is about _____cm longer than Line O.

   Line N is about _____cm shorter than Line M.

   Line N doubled would be about _____cm (longer/shorter) than Line M.

Name _____   Date _____

Compare the lengths and complete each sentence.

1. ———————————————————————————— Line A
                    —————————————————————— Line B

   Line A is about _____ cm longer than line B.

   Line A and B are about _____ cm combined.

2. —————————————————————— Line X
              —————————————————————— Line Y
                        ———————————————— Line Z

   Line X measured about _____ cm.

   Line Y measured about _____ cm.

   Line Z measured about _____ cm.

   Lines X, Y, and Z are about_____ cm combined.

   Line Z is about _____ cm shorter than Line X.

   Line X is about _____cm shorter than Line Y.

   Line Y is about _____ cm longer than Line Z.

   Line X doubled is about _____cm longer than line Y.

Name _____   Date _____

Measure each set of lines with one small paper clip, using mark and move forward.
Measure each set of lines in centimeters using a ruler.

1. Line A ────────────────────────

    Line B   ─────────────────

    Line A is _____ paper clips. Line A is _____ cm long.

    Line B is _____ paper clips. Line B is _____ cm long.

    Line B is _____ paper clips shorter than Line A.

    Line A is _____ cm longer than Line B.

2. ──────────────────────────── Line L

                 ──────────────   Line M

    Line L is _____ paper clips. Line L is _____ cm long.

    Line M is _____ paper clips. Line M is _____ cm long.

    Line L is _____ paper clips longer than Line M.

    Line M doubled is _____ cm longer than Line L.

3. Draw a line that is 16 cm long and another line below it that is 11 cm long.
    Label the 16-cm line R and the 11-cm line S.

    Line R measured _____ paper clips.
    Line S measured _____ paper clips.

COMMON CORE | Lesson 7: Measure and compare lengths using standard metric length units
            | Date: and non-standard lengths units; relate measurement to unit size.   engage^{ny}   2.C.22
                        10/18/13

Name _____   Date _____

Measure the lines with small paper clips and answer the questions below.

Line 1 ————————————————————————

Line 2 ——————————————

Line 3 ————————————————————

Line 1 is _____ paper clips.   Line 1 is _____ cm long.

Line 2 is _____ paper clips.   Line 2 is _____ cm long.

Line 3 is _____ paper clips.   Line 3 is _____ cm long.

Explain why each line had more centimeters than paper clips.

_____

_____

_____

COMMON CORE | Lesson 7:   Measure and compare lengths using standard metric length units
            | and non-standard lengths units; relate measurement to unit size.   engage^{ny}   2.C.24
            | Date: 10/18/13

Name _____   Date _____

Use a centimeter ruler and paper clips to measure and compare lengths.

1. ——————————————————————— Line Z

   Line Z is _____ paper clips. Line Z is _____ cm long.

   Line Z doubled would measure _____ paper clips or _____cm.

2. ——————————————————————— Line A

              ——————————————————————— Line B

   Line A is _____ paper clips. Line A is _____ cm long.

   Line B is _____ paper clips. Line B is _____ cm long.

   Line A is _____ paper clips longer than Line B.

   Line B doubled is _____ cm longer than Line A.

3. Draw a line that is 8 cm and another line below it that is 12 cm.

   Label the 8-cm line F and the 12-cm line G.

   Line F is _____ paper clips long.

   Line G is _____ paper clips long.
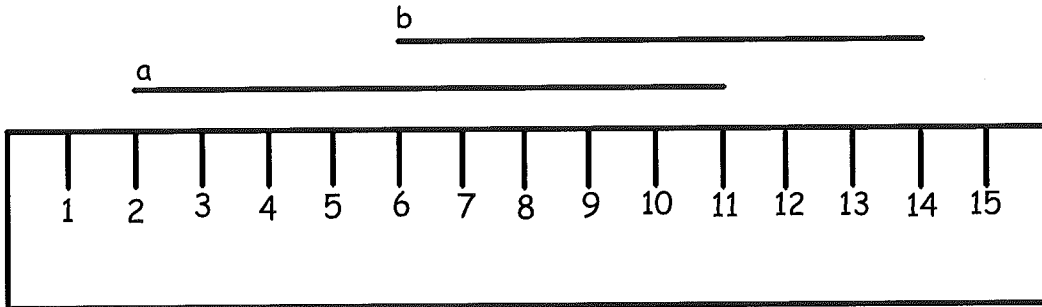
   Line G is _____ cm longer than Line F.

   Line F is _____ paper clips shorter than Line G.

   Lines F and G are _____ paper clips long.

   Lines F and G are _____ centimeters long.

COMMON CORE | Lesson 7:   Measure and compare lengths using standard metric length units   engage^ny   2.C.25
              Date: and non-standard lengths units; relate measurement to unit size.
                         10/18/13

Name _____   Date _____
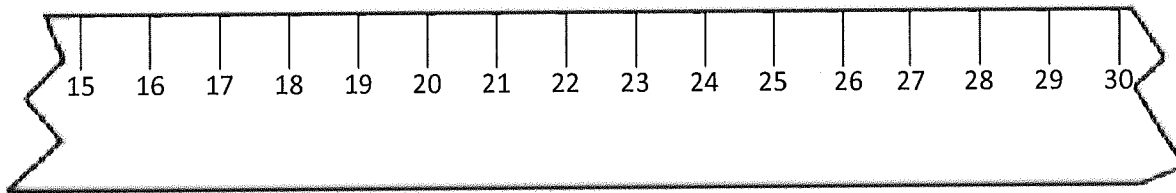
1.

b   _____

a   _____

Line a is _____ cm long.

Line b is _____ cm long.

Together, Lines a and b measure _____ cm.

Line a is _____ cm (longer/shorter) than Line b.

2. A cricket jumped 5 centimeters forward and 9 centimeters back then stopped. If the cricket started at 23 on the ruler, where did the cricket stop? Show your work on the broken centimeter ruler.

3. Marty made a train of red and yellow centimeter cubes that measured 16 centimeters in length. He added 11 more yellow cubes and removed 8 red cubes. What is the length of the train now?
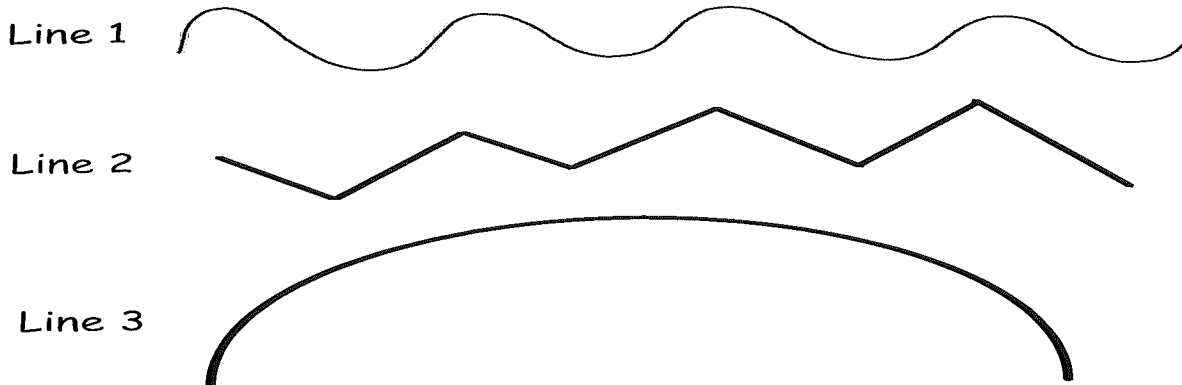
Name _____   Date _____

1. Complete the chart by first estimating the measurement around a classmate's body part. Then find the actual measurement with a meter tape.

Student Name	Body Part Measured	Estimated Measurement in Centimeters	Actual Measurement in Centimeters
	Arm		
	Wrist		
	Head		

    a. Which was longer, your estimate or the actual measurement around your classmate's head? _____

    b. Draw a tape diagram to compare two actual lengths from your chart.

2. Use a string to measure all three lines.

Line 1

Line 2

Line 3

Which line is the longest? _____

COMMON CORE

Lesson 9:   Concrete to abstract: measure the lengths of string using measurement tools; represent length with tape diagrams to represent and compare the lengths.

Date: 10/18/13

engage^ny   2.D.20

2. Measure the two lines below.

line A ———————————————————

line B

a. Line A is ____cm.

b. Line B is ____ cm.

c. Together, lines A and B measure _____ cm.

d. Line A is _____cm (shorter/longer) than line B.

3. Kim is decorating a table for a party. Measure the ribbon she is using to decorate.
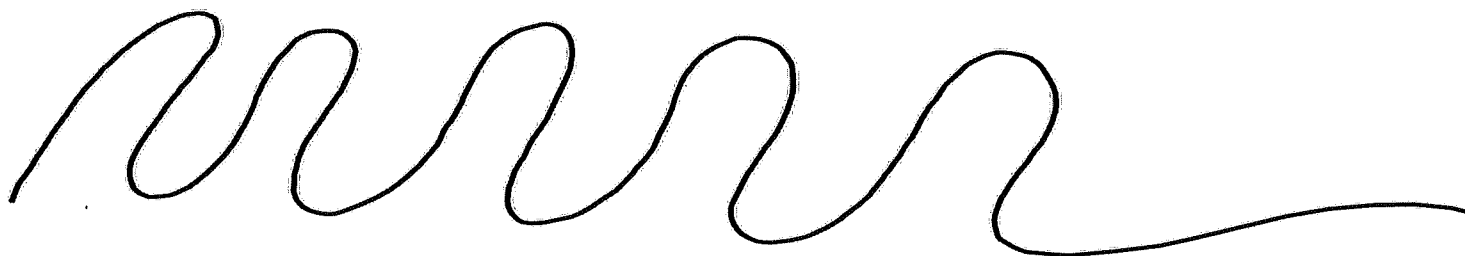
The ribbon is _____ cm long.

Kim needs 1 meter of ribbon.

How much more ribbon does Kim need than what she has? _____cm.

COMMON CORE | Lesson 9:   Concrete to abstract: measure the lengths of string using measurement tools; represent length with tape diagrams to represent and compare the lengths.   engage^ny   2.D.24

Date: 10/18/13

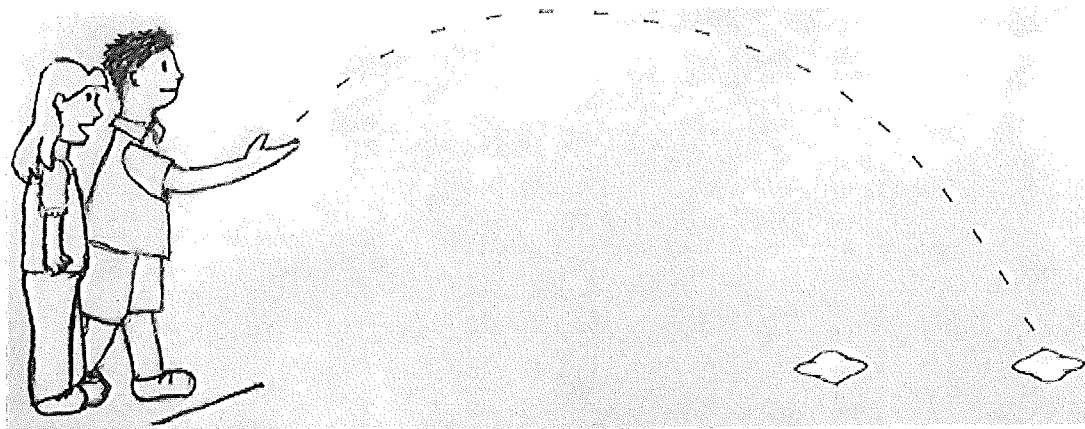Name _____   Date _____

1. Use your ruler to find the length of the pencil and the crayon.

   a. How long is the crayon? _____ centimeters

   b. How long is the pencil? _____ centimeters

   c. Which is longer?   pencil   crayon

   d. How much longer? _____ centimeters

2. Samantha and Bill are having a bean bag throwing contest and need to measure each of their throws.

a. Circle the most appropriate tool to measure their throws.

ruler　　　　　paper clips　　　　　　meter stick　　　　　centimeter cubes

b. Explain your choice using pictures or words.

c. Bill throws his bean bag 5 meters, which was 2 meters farther than Samantha threw her bean bag. How far did Samantha throw her bean bag? Draw a diagram or picture to show the length of their throws.

d. Lily threw her bean bag 3 meters farther than Bill. Who won the contest? How do you know?

3.

Vanessa's Ribbons

|———————————————————————————| |————————————————|
                Ribbon A   Ribbon B

a. Measure the length of Ribbon A with your centimeter ruler and your paper clip. Write the measurements on the lines below.

   _____centimeters   _____paper clips

b. Explain why the number of centimeters is larger than the number of paper clips. Use pictures or words.

c. Estimate the length of Ribbon B in paper clips.

   _____paper clips

Vanessa's Ribbons

|—————————————————————————————————| |—————————————————————————|
                Ribbon A   Ribbon B

d. Measure Ribbon B in centimeters.

    _____centimeters

e. How much longer is Ribbon A than Ribbon B? Give your answer in centimeters.

    Ribbon A is _____cm longer than Ribbon B.

f. Vanessa is using the ribbons to wrap a gift. If she tapes the ribbons together with no overlap, how many centimeters of ribbon does she have altogether?

g. If Vanessa needs 20 centimeters of ribbon, how much more does she need?

4. Use the broken centimeter ruler to solve the problem.

     A grasshopper jumped 7 centimeters forward and 4 centimeters back and then stopped. If the grasshopper started at 18, where did the grasshopper stop? Show your work.