Anagha's Math Level 6 Adv - Week 10

We specialize in Advanced & School Level Math coaching for Grades: K- 12
In-person & Online Math Group classes, Privates, Semi-Privates
Our Mission: To educate, motivate and encourage every student to excel in mathematics.
Email: admin@anaghasmath.com Website: https://www.anaghasmath.com
Phone: (908)705-5397 & (425)830-9664
Correspondence Address: 7040 Cascade Ave SE, Snoqualmie, WA 98065

Topics covered in class	Pages explained in class	Required Homework pages (2 Moola point)
*Review of concepts covered in the previous weeks	Difficult concepts from this packet will be reviewed in class and the rest of the packet is homework.	Full packet is required homework this week

Test 1 will be conducted during regular class next week.
Use Answer-keys posted on Teams for Weeks 9 and 10. They are the review materials for Test 1

Test 1 Information:

- Test 1 in Week 11 during regular class. Study material in Weeks 9 and 10 packet.
- Sample test available for practice on Teams General channel during week 10.

For Online Students:

- Test link on Teams General channel. It will be Active only during class time.
- Latecomers may not complete the test. Tests that are submitted cannot be retrieved by us.
- Report cards will be posted on student channels by week 12.

For In-person Students:

- Paper test during regular class. Graded tests will be returned by week 12.

Moola Credits:

- Level K-5 (15 Moolas): $5 Amazon Gift Card. Level 6-9 (15 Moolas): Five extra test points.

Make-up Tests and Other Test-related Information:

- Missed class, take the test in make-up class.
- At-home make-up/retake test link emailed to parents on Friday evening.
- Must be taken under parent supervision by Sunday night.
- Writing supplies are allowed for all levels.
- **Grades K-6 Intermediate:** No calculators, media devices, or reference materials.
- **Grades 6 Adv-10:** No media devices/reference materials, but calculators allowed.

"Success during a test depends on the preparation put in before the test."

**** GOOD LUCK TO ALL STUDENTS****

Teacher/ TA Homework Grading & Comments:
For In-Person student use only

STUDENT NAME: _____

Students, complete homework to the best of your ability & check work using the answer keys posted in TEAMS.

Has the student checked packet using Answer Key?	Required homework (1 Moola earned)	Extra credit homework (1 Moola earned)	Total Moolas earned this week.	Teacher/TA Name
Yes / No	Yes / No	Yes / No	0 1 2	

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About Us:

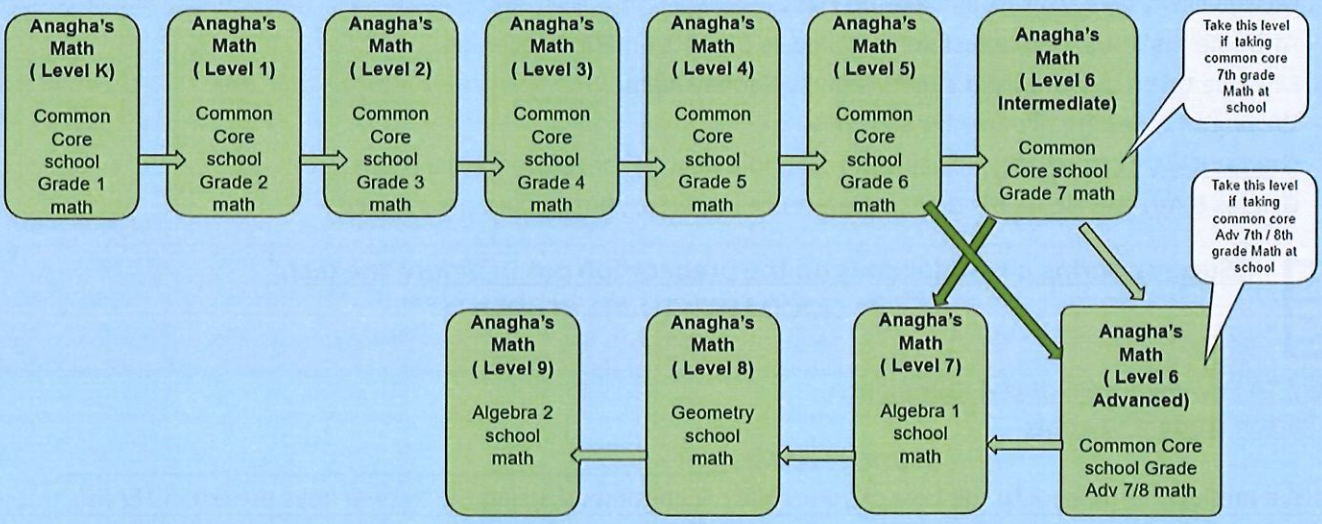
- We offer Advanced and School level math coaching to students from kindergarten to 12th grade.
- Classes are conducted In-person & online as small groups, private & semi-private tutoring throughout the year.
- Our teaching methodology and course curriculum enables students to learn mathematical fundamentals and concepts at their very foundations.
- This ensures a love for mathematics which then naturally flows into a successful school year with excellent grades.
- Anagha's Math Classes started with just a handful of students in Snoqualmie, WA. USA over 10 years ago.
- Today we have more than six hundred students nationwide and are still growing!
- The biggest compliment is our students continue with us over years till the end of the program.
- We are completely student-need focused and make our children be confident and independent Mathematicians!

Why our program is so effective?

- Our students develop lifelong critical thinking skills.
- Our curriculum not only meets common core requirements but also provides graduated challenges to those sharp eager minds!
- We are not dictated by any corporate office to deliver a set pattern of teaching material to our students.
- We have the flexibility to adapt our curriculum to match that of multiple school districts in USA.

Congrats to all our students! 95% of our students are in Advanced math at school.

Anagha's Math flowchart in comparison to school grades in USA



Program Highlights

- We offer in-person and online classes (Academic year and Summer programs).
- Unique one of a kind curriculum specifically designed to go beyond the needs of any school district in in United States.
- Our teaching style inculcated understanding on mathematics in a way that grows student confidence and ensures academic success.
- Experienced teachers who teach tips and tricks to mentally compute and/or solve problems in step by step manner.

1,2

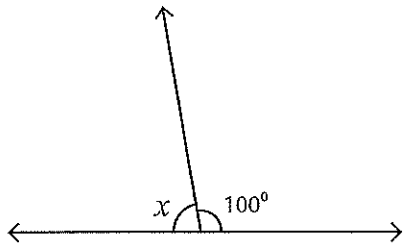
Finding Supplementary Angles

Sheet 1

Find the value of x in each supplementary angle pair.

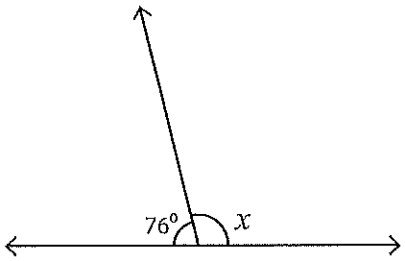
Sum is 180°

1)



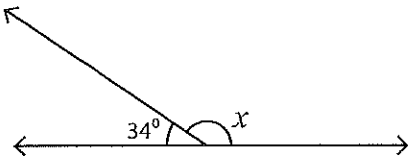
$x =$ _____

2)



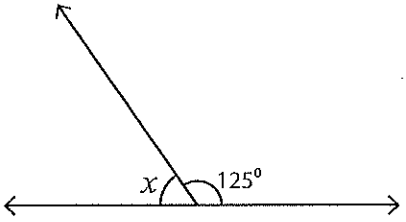
$x =$ _____

3)



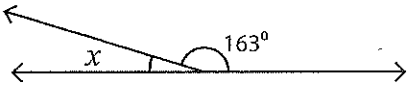
$x =$ _____

4)



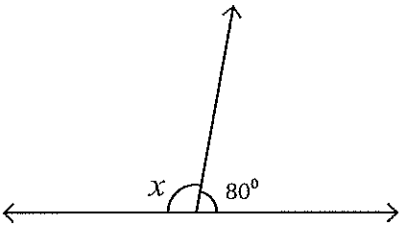
$x =$ _____

5)



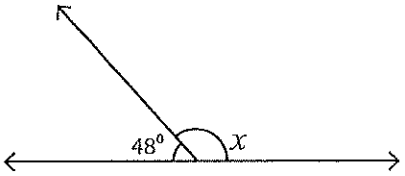
$x =$ _____

6)



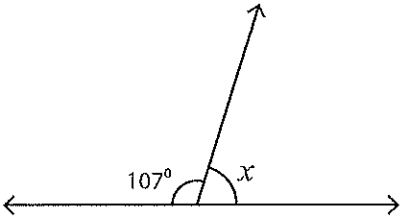
$x =$ _____

7)



$x =$ _____

8)



$x =$ _____

6A/10 Pg 1

1,2

T1S1

Complementary & Supplementary Angles - Revision

90
90

A) Find the complement and supplement of each angle.

1) 35^0

Complement of 35^0 = _____

Supplement of 35^0 = _____

2) 20^0

Complement of 20^0 = _____

Supplement of 20^0 = _____

3) 66^0

Complement of 66^0 = _____

Supplement of 66^0 = _____

4) 81^0

Complement of 81^0 = _____

Supplement of 81^0 = _____

B) State whether the given pairs are complementary or supplementary.

1) $75^0, 105^0$

_____

2) $76^0, 14^0$

_____

3) $62^0, 28^0$

_____

4) $118^0, 62^0$

_____

5) $132^0, 48^0$

_____

6) $19^0, 71^0$

_____

C) Match the following.

1)	Complement of 50^0	130^0
2)	Supplement of 145^0	63^0
3)	Complement of 27^0	35^0
4)	Supplement of 50^0	40^0

6A/10 Pg (2)

1,2

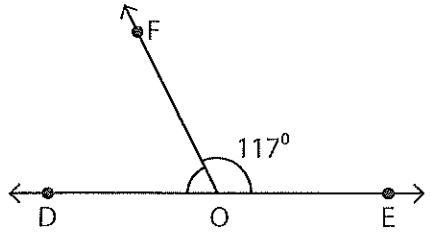
Linear Pairs

Sheet 1

Adjacent angles and sum is 180°

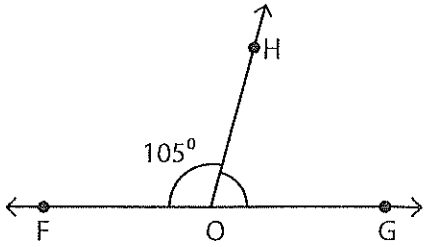
Find the measure of the indicated angle in each linear pair.

1)



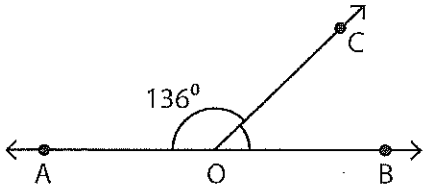
m∠DOF = _____

2)



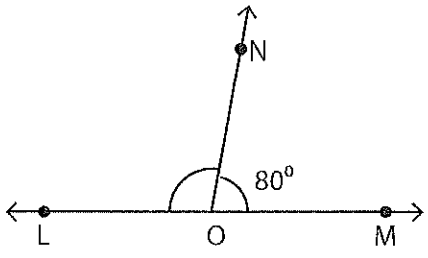
m∠GOH = _____

3)



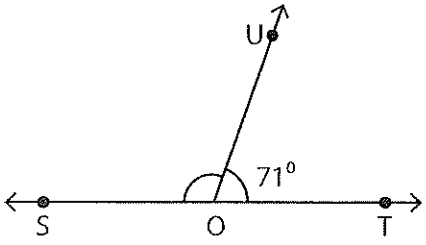
m∠BOC = _____

4)



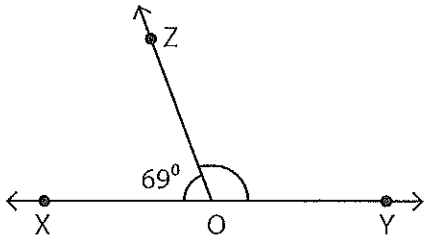
m∠LON = _____

5)



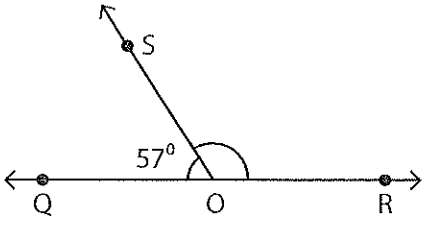
m∠SOU = _____

6)



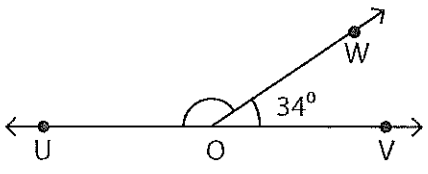
m∠YOZ = _____

7)



m∠ROS = _____

8)



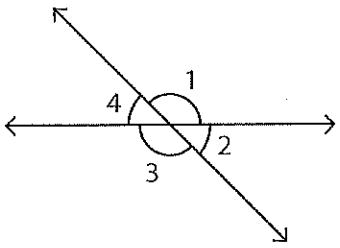
m∠UOW = _____

1,2.

Vertical Angles

Find the unknown angle.

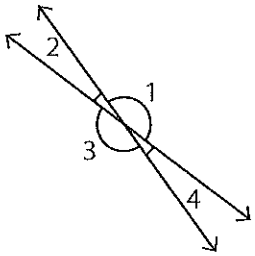
1)



$m\angle 1 = 135^{\circ}$, $m\angle 2 =$ _____

$m\angle 3 =$ _____, $m\angle 4 =$ _____

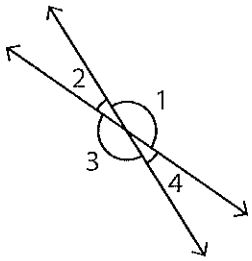
2)



$m\angle 1 =$ _____, $m\angle 2 = 17^{\circ}$

$m\angle 3 =$ _____, $m\angle 4 =$ _____

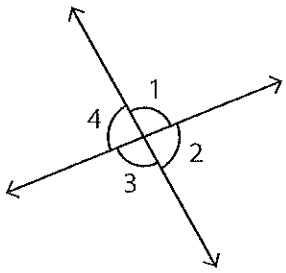
3)



$m\angle 1 =$ _____, $m\angle 2 = 23^{\circ}$

$m\angle 3 =$ _____, $m\angle 4 =$ _____

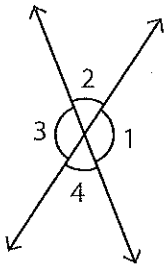
4)



$m\angle 1 =$ _____, $m\angle 2 =$ _____

$m\angle 3 = 97^{\circ}$, $m\angle 4 =$ _____

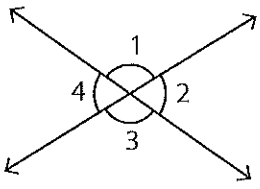
5)



$m\angle 1 =$ _____, $m\angle 2 =$ _____

$m\angle 3 = 125^{\circ}$, $m\angle 4 =$ _____

6)



$m\angle 1 = 113^{\circ}$, $m\angle 2 =$ _____

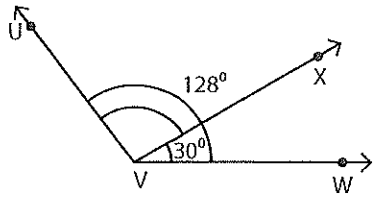
$m\angle 3 =$ _____, $m\angle 4 =$ _____

6 A / 10 Pg (4)

Pairs of Angles

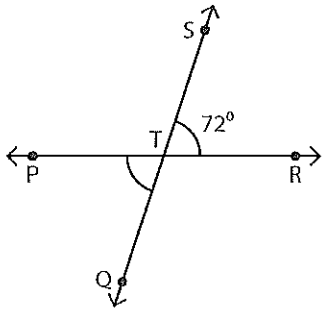
Find the measure of each indicated angle.

1)



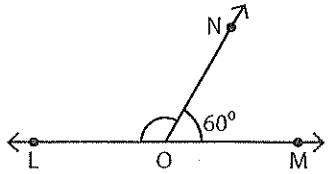
m∠UVX = _____

2)



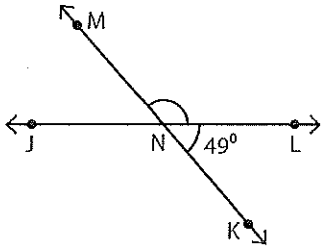
m∠PTQ = _____

3)



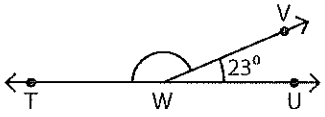
m∠LON = _____

4)



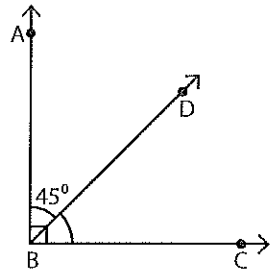
m∠MNL = _____

5)



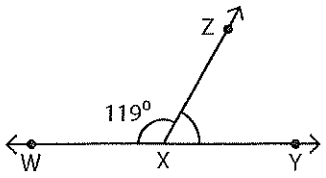
m∠TWV = _____

6)



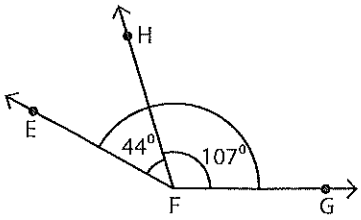
m∠DBC = _____

7)



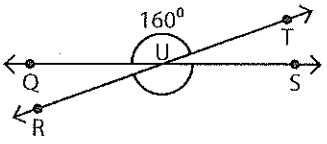
m∠YXZ= _____

8)



m∠EFG = _____

9)



m∠RUS = _____

6A/10 Pg 5

1-4

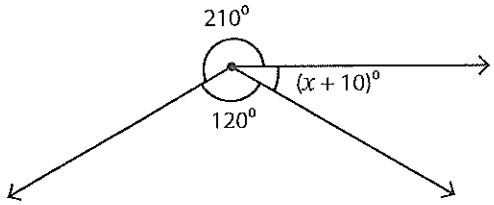
Sheet 1

Angles Around a Point

Sum(all angles) = 360°

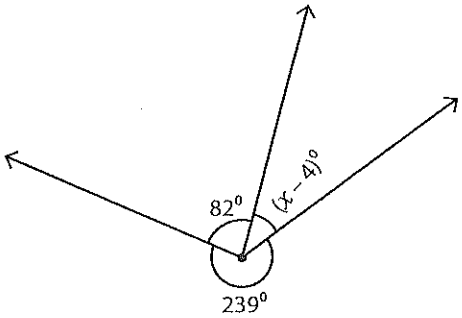
Find the value of x.

1)



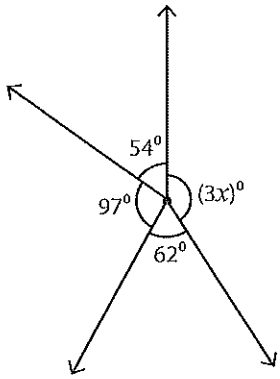
$x =$ _____

2)



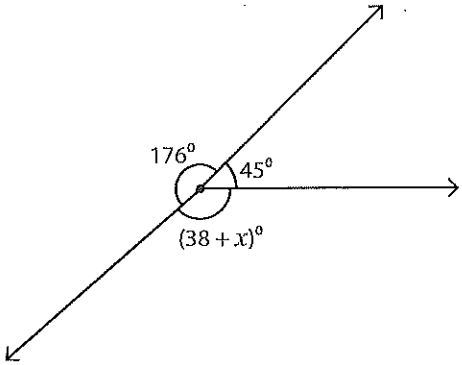
$x =$ _____

3)



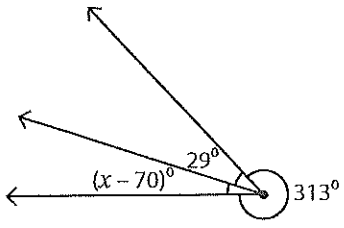
$x =$ _____

4)



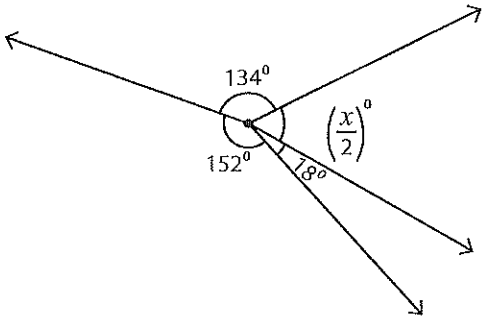
$x =$ _____

5)



$x =$ _____

6)



$x =$ _____

6A /10. Pg 6

1.	Bonnie has twice as many cousins as Robert. George has 5 cousins, which is 11 less than Bonnie has. How many cousins does Robert have? a. 17 b. 21 c. 4 d. 8	Oscar sold 2 glasses of milk for every 5 sodas he sold. If he sold 10 glasses of milk, how many sodas did he sell? a. 45 b. 20 c. 25 d. 10	Mr. Brown plowed 6 acres in 1 hour. At this rate, how long will it take him to plow 21 acres? a. 3 hours b. 4 hours c. 3.5 hours d. 4.75 hours
2.	Bella spent 3/4 of her savings on furniture and the rest on a TV. If the TV cost her $200, what were her original savings?	A car covers 75 km in one hour. How many meters does the car travel in one minute at a constant rate?	A car covers 150 km in 2 hours. How many meters does the car travel in 2 minutes at a constant rate?
3.	What is 2^5? a. 10 b. 15 c. 32 d. 16	What is 2^8?	What is $(-4)^4$?
4.	Find: x $\frac{4}{11} = \frac{x+58}{77}$	Find: x $\frac{28+4x}{8} = \frac{1}{2}$	Find: x $\frac{5x-3}{63} = \frac{9}{21}$

5.	Round your answer to the nearest hundredth. What is 91% of 9.45?	Round your answer to the nearest hundredth. What is 13% of 93.86?	Round your answer to the nearest hundredth. What is 6% of 2.07?
6.	Dan uses a 52-inch flat steel bar that weighs 10.4 lb. to make a rack in the garage. Find the weight of a 67-inch steel bar.	Anna bought a pack of 12 cookies for 3.50 from the supermarket. How many cookies can she buy for 17.50?	Rema runs 6.8 miles in 34 minutes. How much distance is covered in 10 minutes at a constant rate?
7.	$p = -1$ *and* $q = -3$. Find the value of: $\boldsymbol{pq^2}$	$p = -1$ *and* $q = -3$. Find the value of: $\boldsymbol{(pq)^2}$	A quadrilateral in which all 4 sides are equal, is called a ... A rectangle. B parallelogram. C rhombus. D kite.
8.	If you add negative 3 to one-third of a number, you get 10. What is the number?	If you subtract 3 from a number and divide the difference by 8, you get negative 5. What is the number?	A set of points with a definite starting-point and no definite endpoint is called a ... A line segment. B ray. C straight line. D perpendicular line.

Find GCF and LCM (leave in product form if necessary)

a)

÷	$10a^2b$, $20ab^2$

GCF = _____

LCM = _____

÷	$3xy^3$, $9yx^3$

GCF = _____

LCM = _____

b)

÷	$6a^2b^2$, $18ab$

GCF = _____

LCM = _____

÷	$35xy$, $25x^2y^2$

GCF = _____

LCM = _____

c)

÷	$3ab$, $5ab^2$, $2a$

GCF = _____

LCM = _____

÷	$5ab$, $15a^2$, $2b$

GCF = _____

LCM = _____

6A/10-Pg 9

1,3

1	What is the cube root of 64?	What is the square root of cube root of 64?	What is the square of 0.12?
2	What is the sum of all the prime factors of 99?	Find X if twice X plus one is 17.	What is the square of 20 minus the square of 5.
3	If seven more than my number is seven less than seventy, what is seven less than my number?	The product of seven times eight times two is the same as the sum of eighty-nine and what number?	If Andy got 17 out of 20 problems right on his math test, what percent of the problems did he get right?

6A|10-Pg (10)

1 Conversion Chart

Hint to remember: King Henry doesn't usually drink chocolate milk

Kilo	Hecto	Deca	UNIT	Deci	Centi	Milli
Kilo-gram	Hecto-gram	Decca-gram	Gram	Deci-gram	Centi-gram	Milli-gram
Kilo-meter	Hecto-meter	Decca-meter	Meter	Deci -meter	Centi -meter	Milli-meter
Kilo-liter	Hecto-liter	Decca-liter	Liter	Deci-liter	Centi -liter	Milli-liter

Hint: 1 meter (m) = 100 centimeter (cm), 1 meter(m) = 1000 millimeter(mm) , 1 cm = 10 mm

a) 19 m = _____ cm	cm
b) 4.5 m = _____ cm	cm
c) 5.06 m = _____ cm	cm
d) 1.534 m = _____ cm	cm
e) 9400 cm = ____ m	m
f) 940 cm = ____ m	m
g) 94 cm = _____ m	m
h) 0.94 cm = _____ m	m
i) 51 m = ____ mm	mm
j) 6.12 m = ____ mm	mm
k) 3.165 m = ____ mm	mm
l) 500 m = ____ mm	mm
m) 5600 m = _____ mm	mm
n) 560 m = _____ mm	mm
o) 450 cm = ____ mm	mm
p) 0.876 cm = ____ mm	mm
q) 7000 mm = _____ cm	cm
r) 700 mm = _____ cm	cm
s) 7 mm = _____ cm	cm
t) 0.064 mm = _____ cm	cm
u) 0.64 mm = _____ cm	cm

GA 10 Pg 11

1 Write the numbers in standard form

5.89×10^{1}	5.89×10^{3}	5.89×10^{4}	5.89×10^{6}

5.8×10^{-1}	5.8×10^{-3}	5.8×10^{-4}	5.8×10^{-5}

7.6×10^{-1}	7.6×10^{-3}	7.6×10^{-4}	7.6×10^{-5}

2 Simplify

$(-4p^5) + (-2p^5 - 3p^4)$	$(-x^3) + (-2x^3)$	$(11x) + (-5xy^3) + (-4xy^3)$

$(x^6y^2) - (3y^2x^6) + (5x^6y^2)$	$(-m^5) - (9m^4 + 7m^5)$	$(-x^4 + 20x) - (-6x^4)$

3 Twenty percent of a number is eighteen. What is the number?

Twenty percent of a number is 6. What is the number?

6A / 10 Pg (12)

1 Are the given numbers completely divisible by

2,560	7,299	5,730	7500
Divisible by 3? Yes / No	Divisible by 3? Yes / No	Divisible by 3? Yes / No	Divisible by 3? Yes / No
Divisible by 9? Yes / No	Divisible by 9? Yes / No	Divisible by 9? Yes / No	Divisible by 9? Yes / No
Divisible by 6? Yes / No	Divisible by 6? Yes / No	Divisible by 6? Yes / No	Divisible by 6? Yes / No
Divisible by 4? Yes / No	Divisible by 4? Yes / No	Divisible by 4? Yes / No	Divisible by 4? Yes / No

2 Circle the numbers that are perfect squares

8	12	24	60	64
196	343	100	50	200
196	81	169	50	166

Circle the numbers that are perfect cubes

8	24	60	64	125
144	200	27	1000	333
196	343	100	50	166

3 How many even numbers are from 20 and 40?

What is the sum of prime numbers that are less than 20?

The product of 8, negative 3, and my number is negative 24. What is my number?

4 Find the value of

$\left(-\frac{1}{2}\right)^5$ $\left(-\frac{3}{5}\right)^3$ $\left(\frac{11}{13}\right)^2$ $(-4+5)^3$

5 Solve the following absolute value expressions

$|-13+5| =$ $|(-3+5)^2| =$ $-|(5-6)| =$

6A/10 Pg 13

1 Solve using rules of PEMDAS

$20-(-6)+15-(-12)$	$(4)-(-6)\div(2)-(-12)$	$-(-3)\times 4+(-18)\div(3)$

2 Find the value of

$50-6(12\div 4)-2^2$	$(16)^2\div[(12+4)-2^3]$

3 Prime factorize

704	500	680	187
÷	÷	÷	÷

4 Find the value of

$(512)\div(0.1)=$	$(512)\div(0.01)=$	$(512)\div(10)=$	$(512)\div(0.2)=$

$(16.82)\div(0.1)=$	$(16.82)\div(0.01)=$	$(16.82)\div(10)=$	$(16.82)\div(0.2)=$

GA /10 Pg (14)

1 Find the value of

$(512) * (0.5) =$	$(512) * (0.03) =$	$(512) * (1.1) =$

2 Find the value of

$(2.153) \times (30)$	$(0.153) \times (60)$	Sum of One- tenth & Two-hundredth

3 Simplify

$(-2.4) - (-3.2) - (-0.3) =$	$3 - 6.8 - (-10.5) =$

4

What should be added to (-5.06) to get (6.06)?	What should be subtracted from (-5.06) to get (6.06)?	The sum of what number and (-5.18) gives (-1.3)

GA / 10 Pg 15

1 Arrange the given numbers in ascending order

$-50, \quad -46, \quad -21, \quad -80$			
$-5.19, \quad -6.19, \quad -60.19, \quad -7.19$			
$-5.632, \quad -4.7, \quad -5 \cdot 36, \quad -4.79$			

2 Classify as terminating or recurring decimal

31.32323232...	**31.32**	**31.322222..**	**31.321**
*Terminating * Recurring	*Terminating * Recurring	*Terminating * Recurring	*Terminating * Recurring

3 Solve

$8\frac{2}{3} - 1\frac{3}{2}$	$\left(-1\frac{5}{9}\right) \times \left(\frac{9}{28}\right)$	$\left(1\frac{3}{5}\right) \div \left(2\frac{1}{5}\right)$
$7\frac{1}{12} - 1\frac{1}{2} + 3\frac{1}{4}$	$\left[\left(\frac{8}{9}\right) \times \left(-\frac{27}{32}\right)\right] \times \frac{1}{3}$	$\frac{21}{4} \div \left(\frac{1}{8} + \frac{1}{6}\right)$

GA/10 Pg (16)

Translating Phrases: Multi-Step Equations

Translate each verbal phrase into an algebraic equation.

1) Twice the difference between 6 times h and 3 gives 30 _____

2) Sum of 5 times z and 4 divided by two is 7 _____

3) Twenty-two minus the product of 7 and y yields 1 _____

4) Quotient of 8 lowered by 2 times t and 3 is two _____

5) Three-fourths of x added to twice of x gives 11 _____

6) 5 times together of 6 and 4 multiplied by g is equivalent to 50 _____

7) Altogether of 9 and two-thirds of k alike 13 _____

8) 7 raised by thrice of c dropped by factor of five is 2 _____

9) 8 divides total of 3 times f and six equals 3 _____

10) Volume of 8 and the product of 5 and q increased by 6 yields 88 _____

6A/10-Pg (17)

Name : _____

Multi-Step Equations: Integers

Level 1: S5

Solve each equation.

1) $1 = \frac{2(t + 13)}{10 + t}$

2) $-5(3d + 8) = 35$

3) $\frac{p - 16}{5} = p + 4$

4) $8(2y - 1) = 3(16 + 3y)$

5) $13n - 28 = 9n + 32$

6) $21 - 9f = -20(f - 6)$

7) $47 = 2(w - 1) + 5w$

8) $3 = \frac{-3(11 - s)}{7}$

4-10

Anagha's Math Level 6: Solving Linear equations and inequations ID: 1

Solve each equation.

1) $-(1+x)-8(-8x+8)=-65$

2) $4(-8x+2)+4(-7x-6)=-76$

3) $-4(2-8x)-8(2+6x)=72$

4) $-7(-6x-3)-5(-6x-1)=26$

5) $-(-2v+2)+7(2v+4)=26$

6) $-8(v-1)-7(1+v)=-59$

7) $-3(1-6b)-7(-5+7b)=32$

8) $3(-7+3b)-8(4+7b)=-53$

9) $-6(6r-5)+4(-5r-8)=54$

10) $-5(r+6)-4(1-6r)=4$

Adj 6/10 - Pg 19

11) $6(r-3)=4(2r-2)$

12) $7(1+6n)=-(5n-7)$

13) $-5+7(b-5)=6(b-5)$

14) $5(-5v-7)=-3(3v+8)+5$

15) $-4-8(5a+2)=-4(a-4)$

16) $-4(1+3n)-2n-3=-7(1+2n)$

17) $4(x-8)=-1-3(-5x+3)$

18) $-2(k-6)=2(k-4)$

19) $-3(m-7)+5(m+1)=6+7m-8m+2$

20) $-3(1-6v)-6(4v+3)=v+3+7v+4$

Adv 6/10 - Pg (20)

Anagha's Math Level 6 Linear inequations

ID: 2

Rule 1: 8 is greater than 5, but -8 is less than -5.
Remember inequality always flips when you multiply or divide by a negative number.

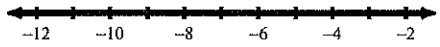
Rule 2: There are in all 4 different inequalities.
Greater than , Less than , Greater than & equal to , Less than& equal to

Rule 3: Only Greater than/ Less than is an open circle on the graph
Greater than & equal to/ Less than & equal to is a closed circle on the graph.

Solve each inequality and graph its solution.

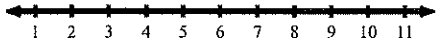
1) $3(4+a) > -3$

2) $3+\frac{x}{4} \leq 1$

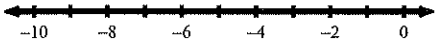


Solve each inequality and graph its solution.

3) $120 \geq -5(1-5x)$

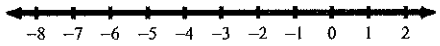


4) $61 \leq 3(2-2r) - 5r$

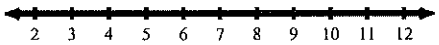


6A/10 - Pg (21)

5) $-5(1-5x)+4<-101$



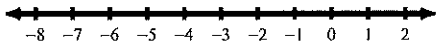
6) $51 \leq 3(3r+2)$



Solve each inequality & graph its solution.

7) $-n-5(-4n-1)>5+2n$

8) $-5(1+4b)>25-5b$



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