

Unit 1 Assignment Sheet
Tools of Geometry
Honors Geometry

Day	Date	Unit 1 Topics	Homework
1	Wed., 8/25	Rules & basic classroom info 1.1 Patterns & Inductive Reasoning <ul style="list-style-type: none"> Envelope Activity Polyhedron 	Get welcome letter signed, etc This HW is already on a worksheet. p. 6-9 1-16; 18&20; 24; 26-40 (evens); 56&57 finish tetrahedron side 1: name & period side 2: hobbies side 3: favorite sport side 4: possible career
2	Thurs., 8/26	1.2 Points, Lines, & planes 1.3 Segments, rays, lines & planes	p. 13-16 4-56 (multiples of 4); 60-65 all; 82-84 all p.19-20 4-32 (multiples of 4); 37-47 all
3	Fri., 8/27	1.4 Measuring segments & angles 1.5 Bisectors CW: p. 29-33 Exs 10, 12, 30, 48, 78, 82	Worksheet Exs 1-44
4	Mon., 8/30	Unit 1 QUIZ 2.5 Congruent Angles	p. 100 2-22 (E), 29, 30, 32, 40 -52 (E), 58
5	Tues., 8/31	1.6 The Co-ordinate Plane, Midpoint Formula, Distance Formula 1.7 Perimeter, Circumference, & Area	p. 46 2-8 E; 18-22 E; 24-28 E; 32-42 E; 65 p. 55 2-8 (E); 12, 16, 22, 24, 28, 30, 36, 38, 40, 50, 66 part c only
6	Wed., 9/1	Review Analyze a Figure Worksheet	Practice Test Study
7	Thurs., 9/2	***** Test Unit 1 ***** Tools of Geometry	

Unit 1 Notes

Vocabulary

acute angle
angle
angle bisector
axiom
collinear points:
compass
congruent angles
congruent segments
conjecture
construction (later)
coordinate
coplanar:
counterexample:
inductive reasoning:
line
linear pair *
midpoint
obtuse angle
opposite rays
parallel lines
parallel planes
perpendicular bisector

perpendicular lines

plane

point

postulate

ray

right angle

segment

skew lines

space

straight angle

straightedge (later)

Others:

adjacent angles

complementary angles

congruent segments

deductive reasoning

linear pair

proof

quadrant

segment bisector

supplementary angles

theorem

vertical

Formulas:

Midpoint Formula: 2-D: $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

3-D: $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}, \frac{z_1 + z_2}{2} \right)$

Midpoint if on a number line: $\frac{x_1 + x_2}{2}$

Distance Formula: 2-D: $\sqrt{x_2 - x_1^2 + y_2 - y_1^2}$

3-D: $\sqrt{x_2 - x_1^2 + y_2 - y_1^2 + z_2 - z_1^2}$

Distance Formula (three dimensions)

$\sqrt{x_2 - x_1^2 + y_2 - y_1^2 + z_2 - z_1^2}$

\cup union of two or more sets

\cap intersection of two or more sets

Exs. If $A = \{1, 2, 3, 4, 5\}$ and $B = \{2, 4, 6, 8, 10\}$,

then $A \cup B = \{1, 2, 3, 4, 5, 6, 8, 10\}$ and $A \cap B = \{2, 4\}$

Unit 1:

Postulate: Through any two points, there is exactly one line.

Postulate: If two lines intersect, then they intersect in exactly one point.

Postulate: If two planes intersect, then they intersect in exactly one line.

Postulate: Through any three noncollinear points, there is exactly one plane

Ruler Postulate: The points of a line can be put in a one-to-one correspondence with the real numbers so that the distance between any two points is the absolute value of the difference of the corresponding numbers.

Segment Addition Postulate (S.A.P.) If three points A, B, and C are collinear and B is between A and C, then $AB + BC = AC$.

Protractor Postulate: Let \overrightarrow{OA} and \overrightarrow{OB} be opposite rays in a plane. $\overrightarrow{OA}, \overrightarrow{OB}$ and all rays with endpoint O that can be drawn on one side of \overrightarrow{AB} can be paired with the real numbers from 0 to 180 in such a way that:

a.) \overrightarrow{OA} is paired with 0 and \overrightarrow{OB} is paired with 180

b.) If \overrightarrow{OC} is paired with x and \overrightarrow{OD} is paired with y, then the $m\angle COD = |x - y|$.

Angle Addition Postulate: (A.A.P.)

If point B is in the interior of $\angle AOC$, then $m\angle AOB + m\angle BOC = m\angle AOC$. If $\angle AOC$ is a straight angle, then $m\angle AOB + m\angle BOC = 180^\circ$.

Postulate: If two figures are congruent, then their areas are equal.

Postulate: The area of a region is the sum of the areas of its nonoverlapping regions.

Others:

Theorem: Vertical angles are congruent

Theorem: If two angles are supplements of congruent angles (or of the same angle), then the angles are congruent.

Theorem: If two angles are complements of congruent angles (or of the same angle), then the angles are congruent

Polyhedron: a three dimensional figure whose surfaces are polygons

regular polyhedron: all faces are congruent regular polygons and the same number of faces meet at each vertex

Platonic Solids - five regular polyhedrons:

Plato: Greek philosopher (427 – 347 BC)

1. tetrahedron
2. hexahedron
3. octahedron
4. dodecahedron
5. icosahedron



You might want to visit: http://www.mathsisfun.com/platonic_solids.html