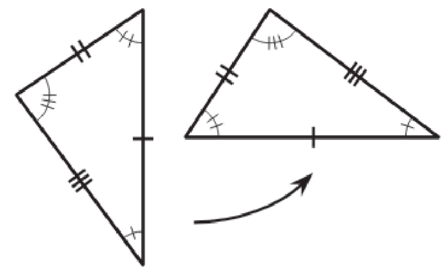
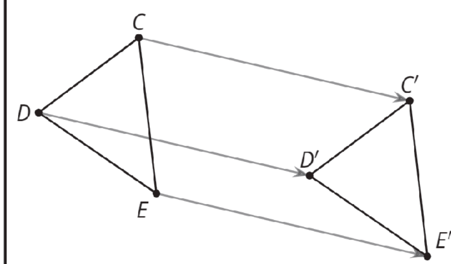
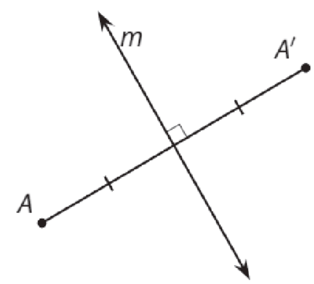
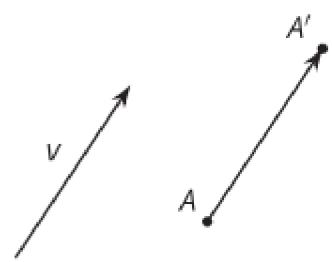
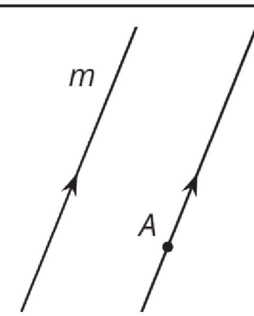
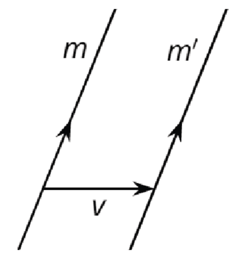
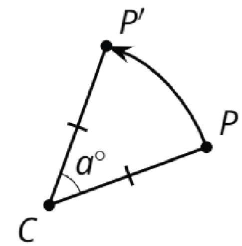
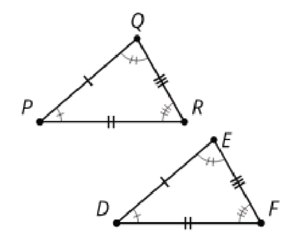
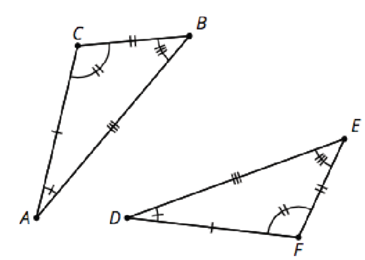
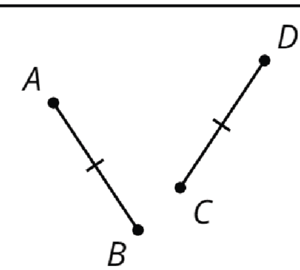
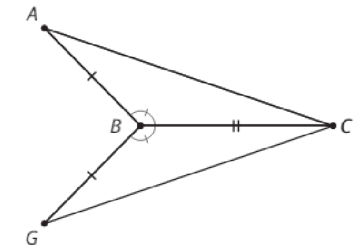
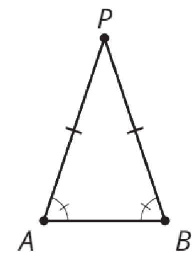
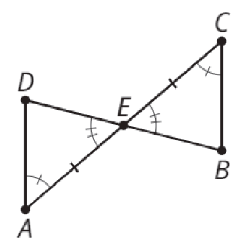
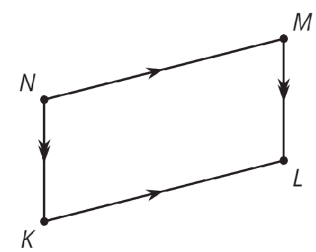
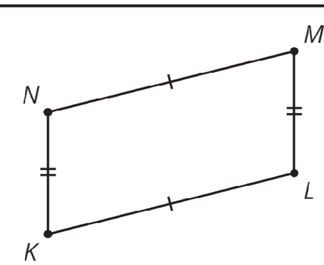
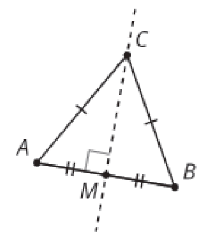
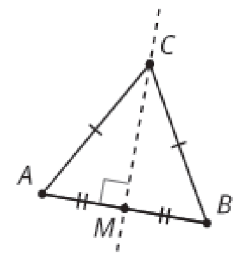
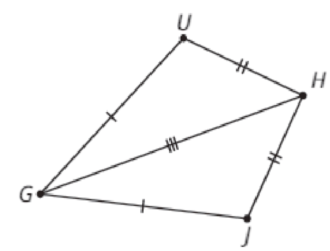
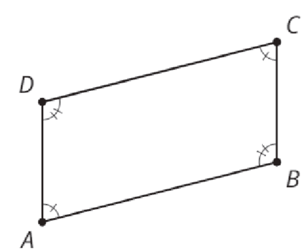
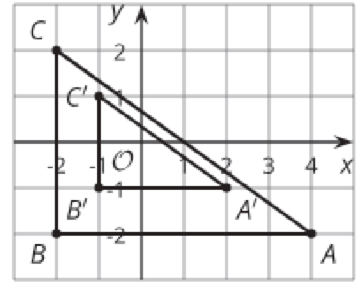
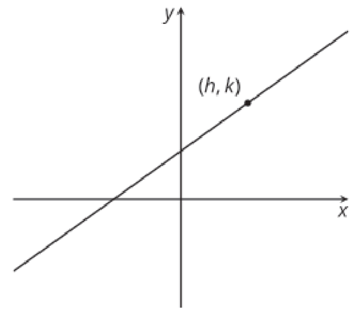
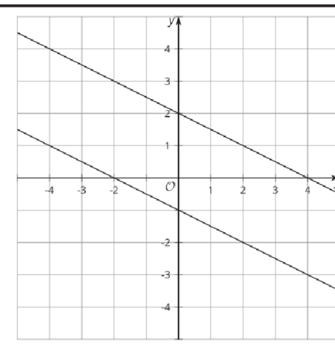
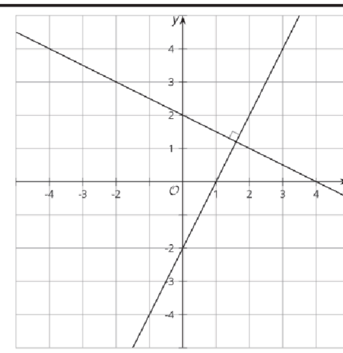
date, type	statement	diagram

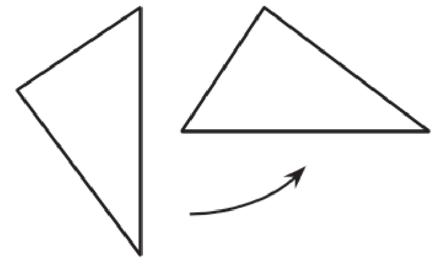
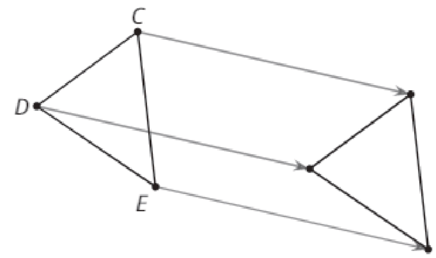
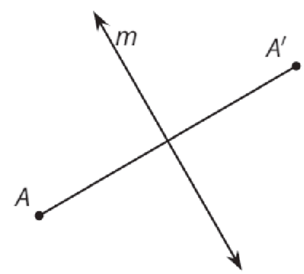
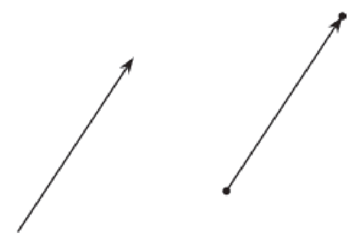
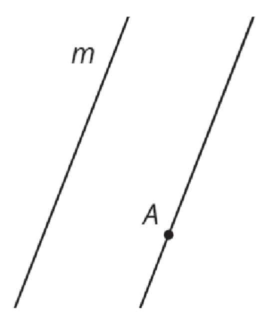
lesson, type	statement	diagram
U1, L10 (students write the date) assertion	A **rigid transformation** is a translation, reflection, rotation, or any sequence of the three. Rigid transformations take lines to lines, angles to angles of the same measure, and segments to segments of the same length.	
U1, L10 definition	Two figures are **congruent** if there is a sequence of translations, rotations, and reflections that takes one figure exactly onto the other. The second figure is called the image of the rigid transformation.	 $\triangle EDC \cong \triangle E'D'C'$
U1, L11 definition	**Reflection** is a rigid transformation that takes a point to another point that is the same distance from the given line, that is on the other side of the given line, and so that the segment from the original point to the image is perpendicular to the given line. “Reflect (object) across line (name).”	 Reflect *A* across line *m*.
U1, L12 definition	**Translation** is a rigid transformation that takes a point to another point so that the directed line segment from the original point to the image is parallel to the given line segment and has the same length and direction. “Translate (object) by the directed line segment (name or from [point] to [point]).”	 Translate *A* by the directed line segment *v*.
U1, L12 assertion	**Parallel Postulate:** Given a line *m* and a point *A* that is not on *m*, there is exactly one line that goes through *A* that is parallel to *m*.	

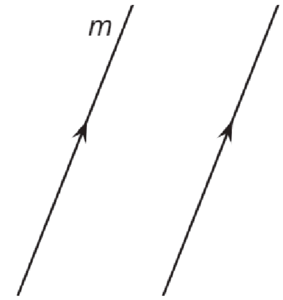
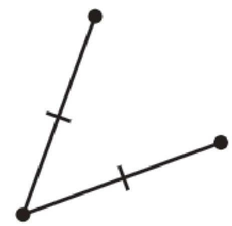
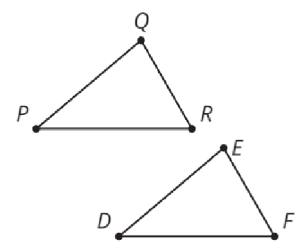
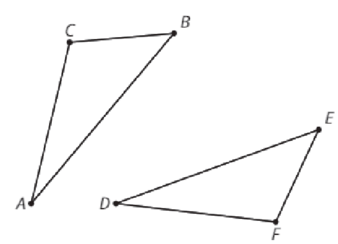
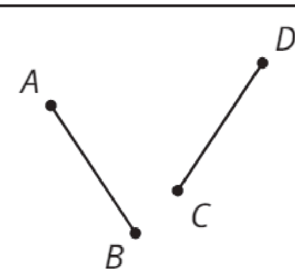
lesson, type	statement	diagram
U1, L12 theorem	Translations take lines to parallel lines or to themselves.	 $m \parallel m'$
U1, L14 definition	**Rotation** is a rigid transformation that takes a point to another point on the circle through the original point with the given center. The two radii, the one from the center to the original point and the one from the center to the image, make the given angle. “Rotate _(object)_ (clockwise or counterclockwise) by _(angle or angle measure)_ using center _(point)_.”	 Rotate *P* counterclockwise by *a*° using center *C*.
U2, L1 theorem	If two figures are congruent, then **corresponding** parts of those figures must be congruent	 $\triangle DEF \cong \triangle PQR$ so $\overline{PQ} \cong \overline{DE}$, $\overline{PR} \cong \overline{DF}$, $\overline{QR} \cong \overline{EF}$, $\angle P \cong \angle D$, $\angle Q \cong \angle E$, $\angle R \cong \angle F$
U2, L3 theorem	If all pairs of corresponding sides and all pairs of corresponding angles are congruent, then the triangles must be congruent.	 $\overline{AB} \cong \overline{DE}$, $\overline{BC} \cong \overline{EF}$, $\overline{AC} \cong \overline{DF}$, $\angle A \cong \angle D$, $\angle B \cong \angle E$, $\angle C \cong \angle F$ so $\triangle ABC \cong \triangle DEF$
U2, L5 theorem	If two segments have the same length, then they are congruent.	 $AB = CD$, so $\overline{AB} \cong \overline{CD}$

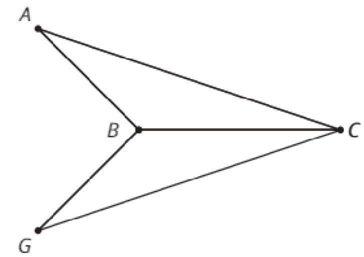
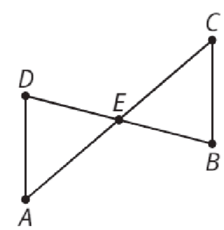
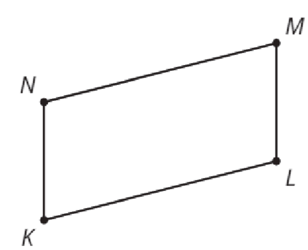
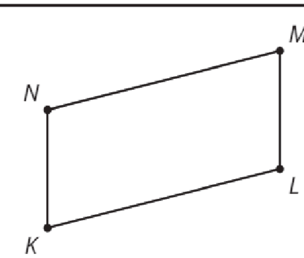
lesson, type	**statement**	**diagram**
U2, L6 theorem	**Side-Angle-Side Triangle Congruence Theorem:** In two triangles, if two pairs of congruent corresponding sides and the pair of corresponding angles between the sides are congruent, then the two triangles are congruent.	 $\overline{AB} \cong \overline{GB}$, $\overline{BC} \cong \overline{BC}$, $\angle ABC \cong \angle GBC$ so $\triangle ABC \cong \triangle GBC$
U2, L6 theorem	**Isosceles Triangle Theorem:** In an isosceles triangle, the base angles are congruent.	 $\overline{AP} \cong \overline{PB}$, so $\angle A \cong \angle B$
U2, L7 theorem	**Angle-Side-Angle Triangle Congruence Theorem:** In two triangles, if two pairs of corresponding angles are congruent and the pair of corresponding sides between the angles is congruent, then the triangles must be congruent.	 $\angle A \cong \angle C$, $\overline{AE} \cong \overline{EC}$, $\angle DEA \cong \angle BEC$, so $\triangle DEA \cong \triangle BEC$
U2, L7 definition	A **parallelogram** is a quadrilateral with two pairs of opposite sides parallel.	 $NM \parallel KL$, $NK \parallel ML$, so *MNKL* is a parallelogram
U2, L7 theorem	In a parallelogram, pairs of opposite sides are congruent.	 *MNKL* is a parallelogram, so $\overline{NM} \cong \overline{KL}$, $\overline{NK} \cong \overline{ML}$

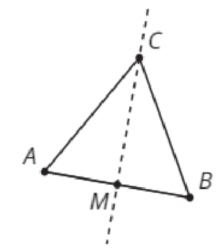
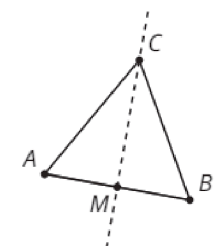
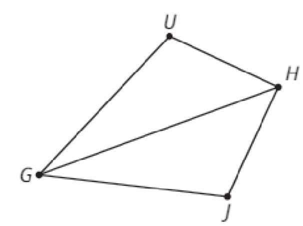
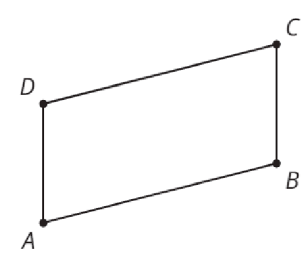
lesson, type	statement	diagram
U2, L8 theorem	If a point *C* is the same distance from *A* as it is from *B*, then *C* must be on the perpendicular bisector of *AB*.	 $\overline{AC} \cong \overline{BC}$, so *C* is on the line through midpoint *M* perpendicular to $\overline{AB}$.
U2, L8 theorem	If *C* is a point on the perpendicular bisector of *AB*, the distance from *C* to *A* is the same as the distance from *C* to *B*.	 $AB \perp CM$, $\overline{AM} \cong \overline{BM}$, so $\overline{AC} \cong \overline{BC}$
U2, L9 theorem	**Side-Side-Side Triangle Congruence Theorem:** In two triangles, if all three pairs of corresponding sides are congruent, then the triangles must be congruent.	 $\overline{HU} \cong \overline{HJ}$, $\overline{UG} \cong \overline{JG}$, $\overline{HG} \cong \overline{HG}$, so $\triangle HUG \cong \triangle HJG$
U2, L9 theorem	In a parallelogram, opposite angles are congruent.	 *ABCD* is a parallelogram, so $\angle A \cong \angle C$, $\angle D \cong \angle B$

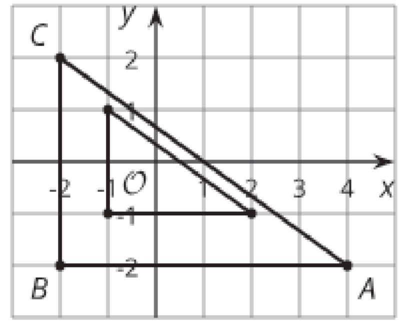
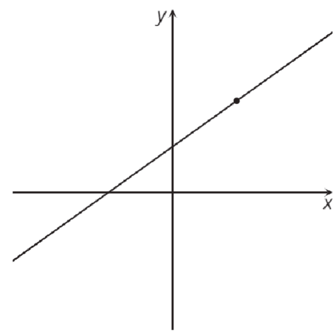
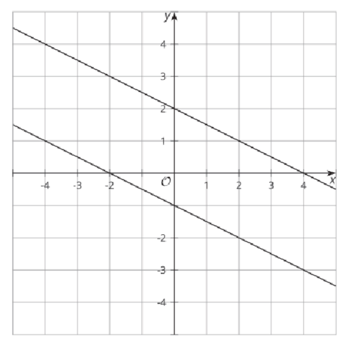
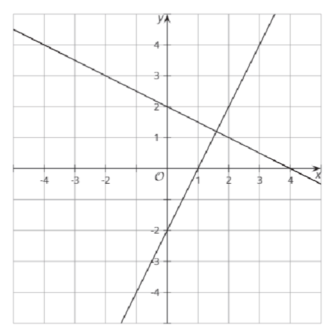
lesson, type	statement	diagram
U5, L2 definition	A **dilation** is a transformation in which each point on a figure moves along a line and changes its distance from a fixed point, called the “center of dilation.” All of the original distances are multiplied by the same scale factor.	
U5, L4 definition	The **point-slope form** of the equation of a line is $y - k = m(x - h)$ where (h, k) is a particular point on the line and m is the slope of the line.	
U5, L5 theorem	Lines are parallel if and only if they have equal slopes.	
U5, L6 theorem	Lines are perpendicular if and only if their slopes are opposite reciprocals.	

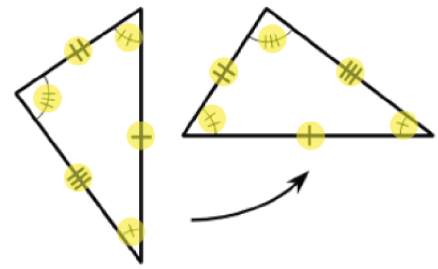
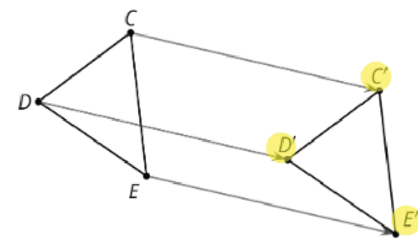
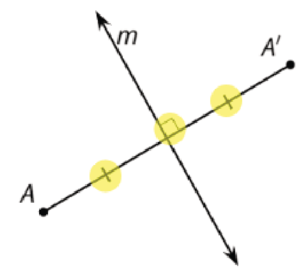
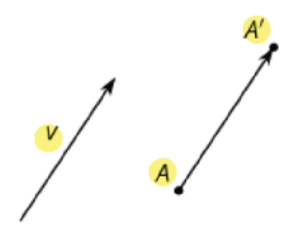
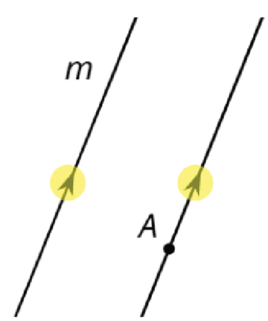
date, type	statement	diagram
assertion	A ______________ is a ______________, ______________, ______________, or any sequence of the three. Rigid transformations take lines to ______________, angles to ______________ of the same measure, and segments to ______________ of the same length.	
definition	One figure is ______________ to another if there is a sequence of ______________, ______________, and ______________ that takes the first figure ______________ onto the second figure. The second figure is called the ______________ of the rigid transformation.	
definition	______________ is a rigid transformation that takes a point to another point that is the same ______________ from the given line, on the other side of the given line, and so that the segment from the original point to the image is ______________ to the given line. "Reflect _(object)_ across line _(name)_."	 Reflect *A* across line *m*.
definition	______________ is a rigid transformation that takes a point to another point so that the directed ______________ from the original point to the image is ______________ to the given line segment and has the same ______________ and ______________. "Translate _(object)_ by the directed line segment _(name or from [point] to [point])_."	 Translate *A* by the directed line segment *v*.
assertion	**Parallel Postulate:** Given a ______________ *m* and a ______________ *A* that is not on _____, there is exactly ______________ that goes through *A* that is ______________ to *m*.	

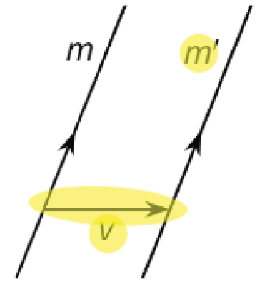
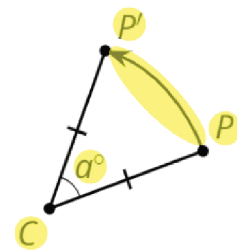
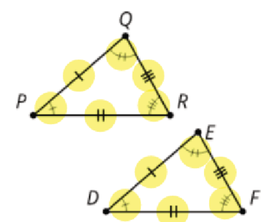
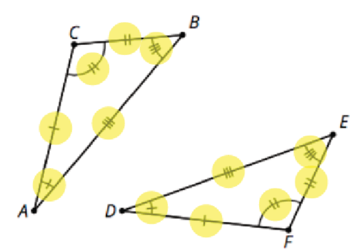
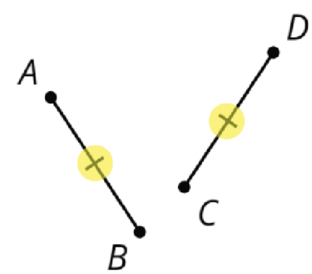
date, type	statement	diagram
theorem	______________ take lines to ___________________________ or to ______________.	
definition	______________ is a ______________ transformation that takes a point to another point on the circle through the original point with the given ______________. The two radii to the original point and the image make the given ______________. “Rotate (object) (clockwise or counterclockwise) by (angle or angle measure) using center (point).”	 Rotate P counterclockwise by $a°$ using center C.
theorem	If two figures are ______________, then ______________ parts of those figures must be ______________.	 $\triangle PQR \cong \triangle DEF$ so $PQ=DE$, $PR=DF$, $QR=EF$, $\angle P \cong \angle D$, $\angle Q \cong \angle E$, $\angle R \cong \angle F$
theorem	If all pairs of corresponding ______________ and all pairs of corresponding ______________ are congruent, then the ______________ must be ______________.	 $AB=DE$, $BC=EF$, $CA=FD$, $\angle B \cong \angle E$, $\angle A \cong \angle D$, $\angle C \cong \angle F$ so
theorem	If two ______________ have the same ______________, then they are ______________.	

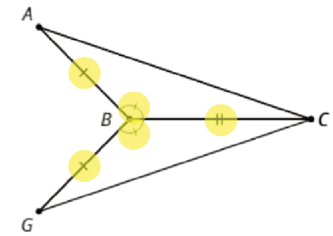
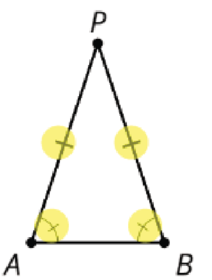
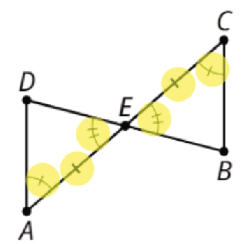
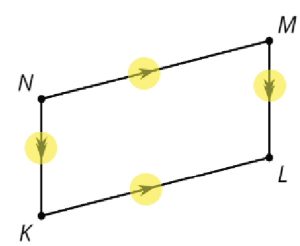
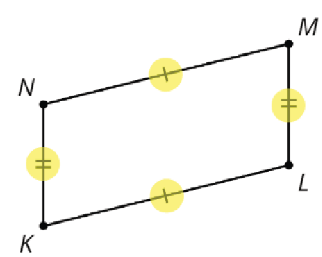
date, type	statement	diagram
theorem	______________________________________ **Triangle Congruence Theorem:** In two triangles, if two pairs of congruent _________________________ and the pair of corresponding ____________ between the sides are ____________, then the two triangles are ____________.	 *AB*=*GB*, *BC*=*BC*, ∠*ABC*≅∠*GBC* so
theorem	____________ **Triangle Theorem:** In an ____________ triangle, the _________________________ are ____________.	
theorem	______________________________________ **Triangle Congruence Theorem:** In two triangles, if two pairs of corresponding ____________, and the pair of corresponding ____________ between the angles are ____________, then the triangles must be ____________.	 ∠*A*≅∠*C*, *AE*=*EC*, ∠*DEA*≅∠*BEC*, so
definition	A ____________ is a quadrilateral with two pairs of ____________ sides ____________.	 *NM* // *KL*, *NK* // *ML*, so
theorem	In a ____________, pairs of ____________ sides are ____________.	 *MNKL* is a parallelogram, so

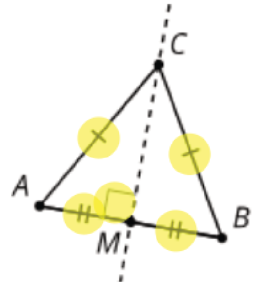
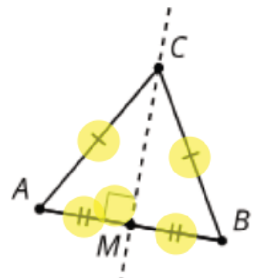
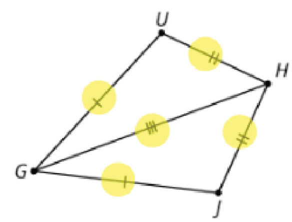
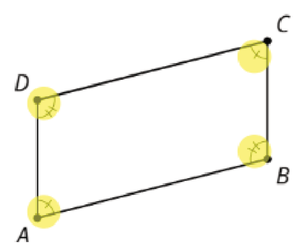
date, type	**statement**	**diagram**
theorem	If a ______________ C is the same ______________ from _____ as it is from _____, then C must be on the ____________________________ of AB.	 $AC=BC$, M is the midpoint, so
theorem	If C is a point on the ____________________________ of segment AB, the distance from _____ to _____ is the same as the ______________ from _____ to _____.	 $AB \perp CM$, $AM=BM$, so
theorem	____ **Triangle Congruence Theorem:** In two triangles, if ____________________________ of corresponding ______________ are congruent, then the triangles must be ______________.	 $HU=HJ$, $UG=JG$, $HG=HG$ so
theorem	In a ______________, ______________ angles are ______________.	 $ABCD$ is a parallelogram, so

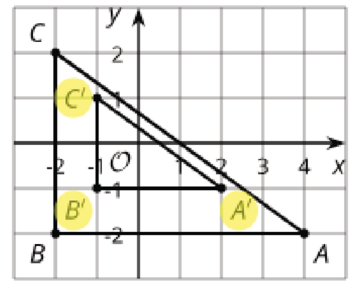
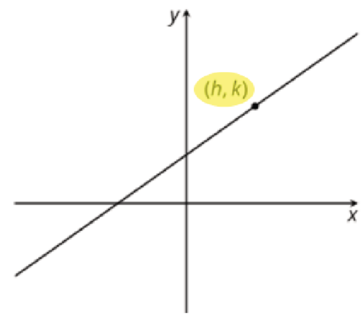
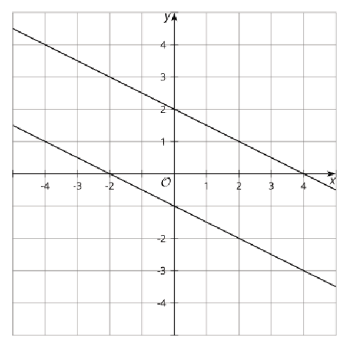
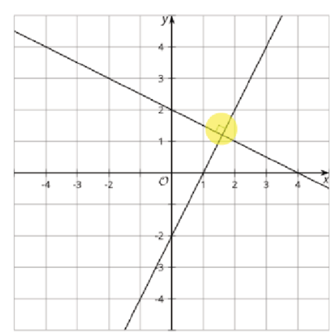
date, type	statement	diagram
definition	A ____________ is a transformation in which each point on a figure moves along a line and changes its distance from a fixed point, called the "________________." All of the original distances are multiplied by the same _______________.	
definition	The _____________________________ form of the equation of a line is _____________________________ where (h, k) is a particular ______________ on the line and m is the ______________ of the line.	
theorem	Lines are ______________ if and only if they have _____________________________.	
theorem	Lines are ______________ if and only if their ______________ are _____________________________.	

lesson, type	statement	diagram
U1, L10 (students write the date) assertion	A **rigid transformation** is a translation, reflection, rotation, or any sequence of the three. Rigid transformations take lines to lines, angles to angles of the same measure, and segments to segments of the same length.	
U1, L10 definition	One figure is **congruent** to another if there is a sequence of translations, rotations, and reflections that takes the first figure exactly onto the second figure. The second figure is called the image of the rigid transformation.	 $\triangle EDC \cong \triangle E'D'C'$
U1, L11 definition	**Reflection** is a rigid transformation that takes a point to another point that is the same distance from the given line, is on the other side of the given line, and so that the segment from the original point to the image is perpendicular to the given line. “Reflect _(object)_ across line _(name)_.”	 Reflect *A* across line *m*.
U1, L12 definition	**Translation** is a rigid transformation that takes a point to another point so that the directed line segment from the original point to the image is parallel to the given line segment and has the same length and direction. “Translate _(object)_ by the directed line segment _(name or from [point] to [point])_.”	 Translate *A* by the directed line segment *v*.
U1, L12 assertion	**Parallel Postulate:** Given a line *m* and a point *A* that is not on *m*, there is exactly one line that goes through *A* that is parallel to *m*.	

lesson, type	statement	diagram
U1, L12 theorem	Translations take lines to parallel lines or to themselves.	 $m \parallel m'$
U1, L14 definition	**Rotation** is a rigid transformation that takes a point to another point on the circle through the original point with the given center. The two radii to the original point and the image make the given angle. "Rotate _(object)_ (clockwise or counterclockwise) by _(angle or angle measure)_ using center _(point)_."	 Rotate *P* counterclockwise by *a*° using center *C*.
U2, L1 theorem	If two figures are congruent, then **corresponding** parts of those figures must be congruent	 $\triangle PQR \cong \triangle DEF$ so $PQ=DE$, $PR=DF$, $QR=EF$, $\angle P \cong \angle D$, $\angle Q \cong \angle E$, $\angle R \cong \angle F$
U2, L3 theorem	If all pairs of corresponding sides and all pairs of corresponding angles are congruent, then the triangles must be congruent.	 $AB=DE$, $BC=EF$, $CA=FD$, $\angle B \cong \angle E$, $\angle A \cong \angle D$, $\angle C \cong \angle F$ so $\triangle ABC \cong \triangle DEF$
U2, L5 theorem	If two segments have the same length, then they are congruent.	 $AB = CD$ so, $\overline{AB} \cong \overline{CD}$

lesson, type	statement	diagram
U2, L6 theorem	**Side-Angle-Side Triangle Congruence Theorem:** In two triangles, if two pairs of congruent corresponding sides and the pair of corresponding angles between the sides are congruent, then the two triangles are congruent.	 $AB=GB$, $BC=BC$, $\angle ABC \cong \angle GBC$ so $\triangle ABC \cong \triangle GBC$
U2, L6 theorem	**Isosceles Triangle Theorem:** In an isosceles triangle, the base angles are congruent.	 $AP=PB$ so $\angle A \cong \angle B$
U2, L7 theorem	**Angle-Side-Angle Triangle Congruence Theorem:** In two triangles, if two pairs of corresponding angles, and the pair of corresponding sides between the angles are congruent, then the triangles must be congruent.	 $\angle A \cong \angle C$, $AE=EC$, $\angle DEA \cong \angle BEC$, so $\triangle DEA \cong \triangle BEC$
U2, L7 definition	A **parallelogram** is a quadrilateral with two pairs of opposite sides parallel.	 $NM \parallel KL$, $NK \parallel ML$, so *MNKL* is a parallelogram
U2, L7 theorem	In a parallelogram, pairs of opposite sides are congruent.	 *MNKL* is a parallelogram, so $NM=KL$, $NK=ML$

lesson, type	**statement**	**diagram**
U2, L8 theorem	If a point *C* is the same distance from *A* as it is from *B*, then *C* must be on the perpendicular bisector of *AB*.	 *AC*=*BC*, *M* is the midpoint, so *MC*⊥*AB*
U2, L8 theorem	If *C* is a point on the perpendicular bisector of segment *AB*, the distance from *C* to *A* is the same as the distance from *C* to *B*.	 *AB*⊥*CM*, *AM*=*BM*, so *AC*=*BC*
U2, L9 theorem	**Side-Side-Side Triangle Congruence Theorem:** In two triangles, if all three pairs of corresponding sides are congruent, then the triangles must be congruent.	 *HU*=*HJ*, *UG*=*JG*, *HG*=*HG* so $\triangle HUG \cong \triangle HJG$
U2, L9 theorem	In a parallelogram, opposite angles are congruent.	 *ABCD* is a parallelogram, so $\angle A \cong \angle C$, $\angle D \cong \angle B$

lesson, type	**statement**	**diagram**
U5, L2 definition	A **dilation** is a transformation in which each point on a figure moves along a line and changes its distance from a fixed point, called the "center of dilation." All of the original distances are multiplied by the same scale factor.	
U5, L4 definition	The **point-slope form** of the equation of a line is $y - k = m(x - h)$ where (h, k) is a particular point on the line and m is the slope of the line.	
U5, L5 theorem	Lines are parallel if and only if they have equal slopes.	
U5, L6 theorem	Lines are perpendicular if and only if their slopes are opposite reciprocals.	

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