Geometry Unit 8: Year-to-date Regents review

Bronx Early College Academy

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13 February 2023 - 17 February 2023

8.1 Triangle angles 13 February

8.2 Transversals and isosceles triangles 14 February

8.3 Midpoint, segment partition 16 February

8.4 Area, volume, density, solids 27 February

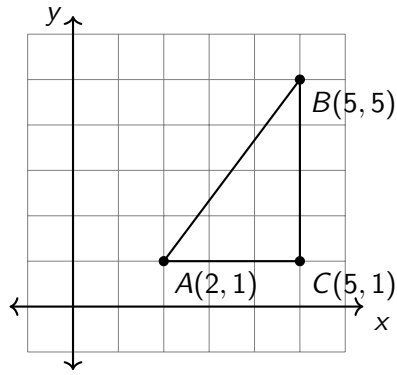
Learning Target: I can calculate triangle angles

HSG.CO.A.5 Congruence transformations 8.1 Monday 13 February

Do Now

1. Review your Jumprope grades
2. Right $\triangle ABC$ with $m\angle A = 53°$. Find $m\angle B$

Lesson: Internal and external triangle angle measures
Homework: Complete the classwork practice, Deltamath problem set



Triangle angle theorems, internal and external angle measures

Find this information in your notebook (October 24th)

Triangle sum theorem $\mathrm{m}\angle A + \mathrm{m}\angle B + \mathrm{m}\angle C = 180^\circ$

External angle theorem $\mathrm{m}\angle A + \mathrm{m}\angle B = \mathrm{m}\angle BCD$

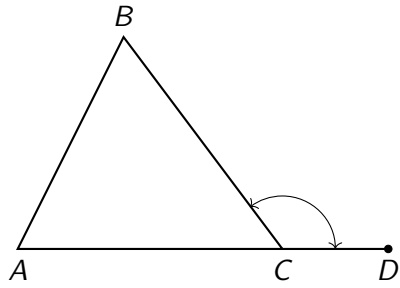
Linear pair angles that make a straight line, 180°

Supplementary angles that sum to 180°

Complementary angles that sum to 90°

Interior Inside, internal

Exterior Outside, external

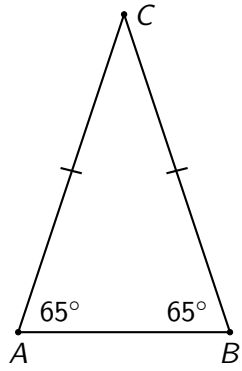


Learning Target: I can work with parallel lines

HSG.CO.A.5 Congruence transformations 8.2 Tuesday 14 February

Do Now: Isosceles $\triangle ABC$ has two angles measuring 65°. Find the measure of the 3rd angle, m$\angle C$.

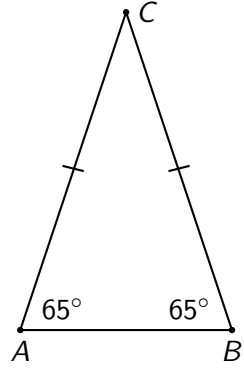
Lesson: Isosceles triangles, parallel lines and transversals
Homework: Complete classwork, Deltamath assignment



Isosceles base theorem: Sides $\cong$ *iff* angles $\cong$

Isosceles $\triangle ABC$ has two angles measuring 65°. Find the measure of the 3rd angle, $m\angle C$.

$65^\circ + 65^\circ + x = 180^\circ$
$130^\circ + x = 90^\circ$
$x = 30^\circ$



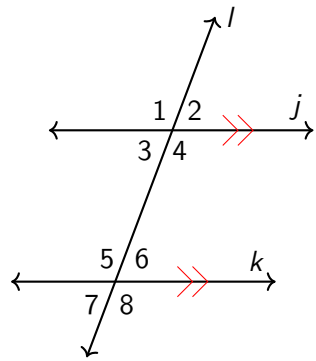
Two parallel lines and a transversal intersecting them

Vertical angles at intersections, opposite angles are $\cong$

Corresponding angles are congruent ($\angle 2 \cong \angle 6$)

Alternate interior angles inside parallels, not on the same side, are congruent ($\angle 3 \cong \angle 6$)

Same side exterior angles outside the transversal, on the same side, are supplementary ($m\angle 1 + m\angle 7 = 180°$)

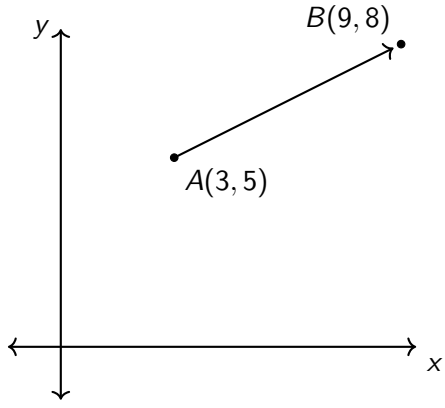


Learning Target: I can partition a line segment

HSG.CO.A.5 Congruence transformations 8.3 Thursday 16 February

Do Now:
Given $T_{+a,+b}$ maps $(3,5) \rightarrow (9,8)$
Find a and b

Lesson: Ratios, partitioning a line segment
Homework: Complete classwork, Deltamath assignment



Learning Target: I can calculate area and volume

HSG.CO.A.5 Congruence transformations 8.4 Monday 27 February

Do Now: Find the volume of the box $ABCD$.
length $= 5$ cm
width $= 3$ cm
height $= 10$ cm

Lesson: Area, perimeter, volume, density, solids, cross sections
Homework: Complete classwork, Deltamath assignment