Semester 2 Final Exam Topics

**Probability**

Create a two-way frequency table from given information in order to determine probability.

Determine probability from a given 2-way frequency table.

**Trigonometry**

Identify all possible ways to solve a given triangle using SOHCAHTOA or Special Triangles.

Set up trigonometric ratios for a given triangle (x2).

Identify the correct trigonometric ratio (sin, cos or tan) based off of a similar triangle relationship.

Determine an angle measure using trigonometry (x2).

Determine a side measure using trigonometry.

Use trigonometry to determine both sides and angles on a set of connected triangles.

Determine a side length using the Pythagorean Theorem.

**Similar Triangles**

Identify information needed to prove that two triangles are similar.

Determine a side length using similar triangles.

**Congruent Triangles**

Identify which triangle sets can be proven congruent using a given property.

Determine which property is used to show triangles congruent within a two-column proof.

**Triangles**

Use the triangle sum theorem to write an expression involving *x* for an angle, when given only one angle measure.

**Parallel Lines Cut by a Transversal**

Determine which parallel lines property proves angles congruent or supplementary within a two-column proof.

**Quadratics**

Use the Quadratic formula/completing the square/factoring to determine the zeros/solutions/roots (x2).

Use the Quadratic Formula to solve an equation.

Determine the *y*-intercept from the standard form equation of a quadratic.

Identify the graph of a quadratic equation expressed in factored form.

Identify the range from a quadratic equation expressed in vertex form.

Use a given vertex to identify equations in multiple forms that match a described projectile motion situation.

Use given solutions to identify the factors, *x*-intercepts and quadratic equation expressed in factored form.

Understand the real-world meaning of details given on the graph of a quadratic.

**Polynomials**

Multiply polynomials.

Subtract polynomials.

Determine what number would add or subtract to a given number to create a rational or an irrational result.

Semester 2 Final Exam Topics

**Period 1 Understandings and Questions**

**Probability**

Create a two-way frequency table from given information in order to determine probability.

**Q: How to make the table.**

Determine probability from a given 2-way frequency table.

**Q: Nope.**

**Trigonometry**

Identify all possible ways to solve a given triangle using SOHCAHTOA or Special Triangles.

**Q:**

Set up trigonometric ratios for a given triangle (x2).

**Q: What does that look like?**

Identify the correct trigonometric ratio (sin, cos or tan) based off of a similar triangle relationship.

**Q: What do you mean by similar relationship?**

Determine an angle measure using trigonometry (x2).

**Q: how to set up the equation, calculator set up**

Determine a side measure using trigonometry.

**Q: Nope…maybe…Ms. G hears mutterings.**

Use trigonometry to determine both sides and angles on a set of connected triangles.

**Q: Oh, yeah…um, what?... Yeah. Do you have any visuals?**

Determine a side length using the Pythagorean Theorem.

**Q: Gotst it.**

**Similar Triangles**

Identify information needed to prove that two triangles are similar.

**Q: I don’t remember this.**

Determine a side length using similar triangles.

**Q: Need a touch up. That one I never understood. (I gotchoo. –Ms. G)**

**Congruent Triangles**

Identify which triangle sets can be proven congruent using a given property.

**Q: NOOOOOOOOOOOOOOOO! Not this! Why?????????**

Determine which property is used to show triangles congruent within a two-column proof.

**Q: See above? (but some of us got that.) Seriously. Some of us need you to see above.**

**Triangles**

Use the triangle sum theorem to write an expression involving *x* for an angle, when given only one angle measure.

**Q: What do you mean? Visuals, please.**

**Parallel Lines Cut by a Transversal**

Determine which parallel lines property proves angles congruent or supplementary within a two-column proof.

**Q: Oh my god. No. I mean, we can do it, but … (supplementary means add to 180)**

**Quadratics**

Use the Quadratic formula/completing the square/factoring to determine the zeros/solutions/roots (x2).

**Q: Good. Yeah… good. Mostly. Mutterings again.**

Use the Quadratic Formula to solve an equation.

**Q: What is the Quad form again? X was a negative boy who couldn’t decide whether or not to go to a**

**rad part or miss out on 4 awesome chicks. It would all be over at 2Am.**

Determine the *y*-intercept from the standard form equation of a quadratic.

**Q: Uuuuhhhh… yes. I got this. (it’s the number without an x)**

Identify the graph of a quadratic equation expressed in factored form.

**Q: I dunno. Yeah. Yeah. Oh… isn’t that the two parentheses? (yes, it is. – Ms. G)**

**Can we go over the forms? I don’t remember them. (how to connect equation to graph)**

Identify the range from a quadratic equation expressed in vertex form.

**Q: Uhhh, what’s the range? (it’s all the possible y-values. –Ms. G)**

Use a given vertex to identify equations in multiple forms that match a described projectile motion situation.

**Q: (that means a real world quadratic. And, yes, I can speak English. I can also speak Math. –Ms. G)\**

**Huh?**

Use given solutions to identify the factors, *x*-intercepts and quadratic equation expressed in factored form.

**Q: Um… huh?**

Understand the real-world meaning of details given on the graph of a quadratic.

**Q: What? I get height. But the rest… huh?**

**Polynomials**

Multiply polynomials.

**Q: OOOOhhhh. Yeah. I’d still like to learn it, though.**

Subtract polynomials.

**Q: OOOOhhhh, thiiiiis. See above.**

Determine what number would add or subtract to a given number to create a rational or an irrational result.

**Q: I never got that. I didn’t understand the irrational.**

Semester 2 Final Exam Topics

**Period 2 Understandings and Questions**

**Probability**

Create a two-way frequency table from given information in order to determine probability.

**Q: Complete silence. … air conditioning… Does it matter what goes on the top and the side? (Nope. It’s based on your preference. The numbers matter, not the order. – Ms. G) How to make the table…?**

Determine probability from a given 2-way frequency table.

**Q: Silence. Should I interpret this as… “I get it”…? Hello? Echo, echo, echo…okay, then.**

**Trigonometry**

Identify all possible ways to solve a given triangle using SOHCAHTOA or Special Triangles.

**Q: What does special triangle look like? (30-60-90 & 45-45-90)**

Set up trigonometric ratios for a given triangle (x2).

**Q: What do you mean by this? How do we do this with a calculator?**

Identify the correct trigonometric ratio (sin, cos or tan) based off of a similar triangle relationship.

**Q: Which tables do you use to solve this? What are the similar relationships?**

Determine an angle measure using trigonometry (x2).

**Q: How do we do this with a calculator? How do we set this up?**

Determine a side measure using trigonometry.

**Q: What is the difference between side and angle measure set ups?**

Use trigonometry to determine both sides and angles on a set of connected triangles.

**Q: How do we use trig to find the sides and angles? What is the hypotenuse?**

Determine a side length using the Pythagorean Theorem.

**Q: What is the Pyth. Thm? How do we do it?**

**Similar Triangles**

Identify information needed to prove that two triangles are similar.

**Q: What is this?**

Determine a side length using similar triangles.

**Q: We don’t remember. (the one where you make fractions and cross multiply)**

**Congruent Triangles**

Identify which triangle sets can be proven congruent using a given property.

**Q: How do you know when it’s SSS or SAS or all of those?**

Determine which property is used to show triangles congruent within a two-column proof.

**Q: How do you know when it’s SSS or SAS or all of those? (how to fill in proofs, as well…?)**

**Triangles**

Use the triangle sum theorem to write an expression involving *x* for an angle, when given only one angle measure.

**Q: What is triangle sum? (when they add to equal 180). Yeah, I don’t get that. Teach it. (please?)**

**Parallel Lines Cut by a Transversal**

Determine which parallel lines property proves angles congruent or supplementary within a two-column proof.

**Q: What are the properties? How to tell which angles are which.**

**Quadratics**

Use the Quadratic formula/completing the square/factoring to determine the zeros/solutions/roots (x2).

**Q: A little bit okay, a little but…. Um, help.**

Use the Quadratic Formula to solve an equation.

**Q: What is the Quadratic Formula? X was a negative boy who couldn’t decide whether or not to go to a**

**rad party or be square and miss out on 4 Awesome chicks. It would all be over at 2Am.**

Determine the *y*-intercept from the standard form equation of a quadratic.

**Q: What are the forms? How to find y-int in the form?**

Identify the graph of a quadratic equation expressed in factored form.

**Q: What are the forms? How do you connect graph to equation?**

Identify the range from a quadratic equation expressed in vertex form.

**Q: What are the forms? What is range?**

Use a given vertex to identify equations in multiple forms that match a described projectile motion situation.

**Q: What is projectile motion (real-world quadratic)? What are the forms? How to connect?**

Use given solutions to identify the factors, *x*-intercepts and quadratic equation expressed in factored form.

**Q: ????**

Understand the real-world meaning of details given on the graph of a quadratic.

**Q:**

**Polynomials**

Multiply polynomials.

**U:**

**Q:**

Subtract polynomials.

**U:**

**Q:**

Determine what number would add or subtract to a given number to create a rational or an irrational result.

**U:**

**Q:**

Semester 2 Final Exam Topics

**Period 4 Understandings and Questions**

**Probability**

Create a two-way frequency table from given information in order to determine probability.

**Q: What’s a frequency table? How do you create them?**

Determine probability from a given 2-way frequency table.

**Q: We got this… right? (Ms. G hopes… but the silence worries her.)**

**Trigonometry**

Identify all possible ways to solve a given triangle using SOHCAHTOA or Special Triangles.

**Q: For SOHCAHTOA, how do you set up the fractions? What are special triangles and how do you put**

**them in the table?**

Set up trigonometric ratios for a given triangle (x2).

**Q: For SOHCAHTOA, how do you set up the fractions?**

Identify the correct trigonometric ratio (sin, cos or tan) based off of a similar triangle relationship.

**Q: How do we relate the two trianlgeS? Yup. That’s how you spell trianlgeS.**

Determine an angle measure using trigonometry (x2).

**Q: How do you determine the angle? How do you set it up with a calculator?**

Determine a side measure using trigonometry.

**Q: How do you determine the side? How do you set it up with a calculator? How is it different from**

**angles?**

Use trigonometry to determine both sides and angles on a set of connected triangles.

**Q: We don’t get it. How do you do it?**

Determine a side length using the Pythagorean Theorem.

**Q: () How do we determine the sides to plug them in correctly?**

**Similar Triangles**

Identify information needed to prove that two triangles are similar.

**Q: Mildly scared faces. SO… help? Please. What is this? How do you do this?**

Determine a side length using similar triangles.

**Q: How do you plug it in? We don’t remember. The fog has set in. (Ms. G enjoys editorializing and big**

**words)**

**Congruent Triangles**

Identify which triangle sets can be proven congruent using a given property.

**Q: What are congruent triangles? Heavy sighs, …how do you do it?**

Determine which property is used to show triangles congruent within a two-column proof.

**Q: What is a proof? How do you fill in the blanks? What are the properties?**

**Triangles**

Use the triangle sum theorem to write an expression involving *x* for an angle, when given only one angle measure.

**Q: Refresh the memory, please. Scary unrelated noise outside.**

**Parallel Lines Cut by a Transversal**

Determine which parallel lines property proves angles congruent or supplementary within a two-column proof.

**Q: (supplementary means +=180) Don’t get this at all. What are the properties?**

**Quadratics**

Use the Quadratic formula/completing the square/factoring to determine the zeros/solutions/roots (x2).

**Q: What is the formula? X was a negative boy who couldn’t decide whether or not to go to a rad party**

**or be square and miss out on 4 Awesome chicks. It would all be over at 2 Am.**

Use the Quadratic Formula to solve an equation.

**Q: See above.**

Determine the *y*-intercept from the standard form equation of a quadratic.

**Q: What is the y-intercept & how is it written? What are the forms of a quadratic?**

**(Answer is just the number without x. )**

Identify the graph of a quadratic equation expressed in factored form.

**Q: What are the forms? How do you connect graph to equation?**

Identify the range from a quadratic equation expressed in vertex form.

**Q: How can you find the range and what is it?**

Use a given vertex to identify equations in multiple forms that match a described projectile motion situation.

**Q: Hmm? (People keep staring at Ms. G as if to say “…what now?”) …how?**

Use given solutions to identify the factors, *x*-intercepts when the quadratic equation is expressed in factored form.

**Q: Just show us the forms. What, fool? (That question was unrelated). What are the factors and x-**

**intercepts?**

Understand the real-world meaning of details given on the graph of a quadratic.

**Q: What does it mean by “real-world”? How do you interpret the graph?**

**Polynomials**

Multiply polynomials.

**Q: What are the processes? Just need practice.**

Subtract polynomials.

**Q: mostly okay, but need practice.**

Determine what number would add or subtract to a given number to create a rational or an irrational result.

**Q: What is rational? What is irrational?**

Semester 2 Final Exam Topics

**Period 5 Understandings and Questions**

**Probability**

Create a two-way frequency table from given information in order to determine probability.

**Q: How do you create a 2-way table?**

Determine probability from a given 2-way frequency table.

**Q: We’re good. Totally. Right? Totally rad. Yes. Hey.**

**Trigonometry**

Identify all possible ways to solve a given triangle using SOHCAHTOA or Special Triangles.

**Q: I think I just forgot. What’s a special triangle (30-60-90 & 45-45-90 – Ms. G & her singing chorus)?**

Set up trigonometric ratios for a given triangle (x2).

**Q: Confusion (…about what? – Ms. G) Genearl (but mostly about the meaning of “trigonometric”). Yup.**

**That’s how you spell Genearl.**

Identify the correct trigonometric ratio (sin, cos or tan) based off of a similar triangle relationship.

**Q: Wait, WHAT? Excuse me, what? What do mean by similar relationship? Why is the fraction the**

**same?**

Determine an angle measure using trigonometry (x2).

**Q: How do we do this on a calculator? CAN WE PLEASE HAVE A TABLE?????? Please. I want it. Por favor.**

**On jaw (umm…what now? – Ms. G) On jah…. (still old and confused. –Ms. G) scksckscksck… (okay. Sure. – Ms. G). (You’re welcome. Ms. G) Periodt. >>>>>>?????????????????????????????**

Determine a side measure using trigonometry.

**Q: Nah. Okay, like, kind of.**

Use trigonometry to determine both sides and angles on a set of connected triangles.

**Q: … worrisome silence. And a nope. (I’m not going through that again. –Ms. G) (Because. – Ms. G)**

Determine a side length using the Pythagorean Theorem.

**Q: Oh, no, no, no, no. THa’ts easy.**

**(Tha’ts is correct. Don’t go judging my interpretation of spelling – Ms. G)**

**Similar Triangles**

Identify information needed to prove that two triangles are similar.

**Q: What information do you need? What are the properties? Do we have to, like, name the properties?**

**\*Loud groaning from the crowd\***

Determine a side length using similar triangles.

**Q: Wait, what…. We’re good. (mixed messaging)**

**Congruent Triangles**

Identify which triangle sets can be proven congruent using a given property.

**Q: We’re Gucci. But, what are the properties?**

Determine which property is used to show triangles congruent within a two-column proof.

**Q: (SSS, SAS, ASA, AAS & HL) Concerned commentary from the group.**

**Triangles**

Use the triangle sum theorem to write an expression involving *x* for an angle, when given only one angle measure.

**Q: We’re good, but we need practice.**

**Parallel Lines Cut by a Transversal**

Determine which parallel lines property proves angles congruent or supplementary within a two-column proof.

**Q: (supplementary means “add to equal 180”) What are the properties?**

**Quadratics**

Use the Quadratic formula/completing the square/factoring to determine the zeros/solutions/roots (x2).

**Q: How do you find the zeros?**

Use the Quadratic Formula to solve an equation.

**Q: What is the quadratic formula? X was a NEGATIVE Boy who couldn’t decide whether or not to go to**

**a rad party or be square and miss out on 4 Awesome Chicks. It would all be over at 2 Am.**

Determine the *y*-intercept from the standard form equation of a quadratic.

**Q: What are the forms? (plug in zero)**

Identify the graph of a quadratic equation expressed in factored form.

**Q: What are the forms & how do you connect to graph?**

Identify the range from a quadratic equation expressed in vertex form.

**Q: What is range?**

Use a given vertex to identify equations in multiple forms that match a described projectile motion situation.

**Q: WHAT??????????**

Use given solutions to identify the factors, *x*-intercepts and quadratic equation expressed in factored form.

**Q:**

Understand the real-world meaning of details given on the graph of a quadratic.

**Q:**

**Polynomials**

Multiply polynomials.

**Q:**

Subtract polynomials.

**Q:**

Determine what number would add or subtract to a given number to create a rational or an irrational result.

**Q:**