 Linear Functions

| Content | Teaching strategies and activities | Resources | |
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| Distance and midpoint formula. | Quizzes to review coordinate geometry  <http://mathslinks.net/faculty/coordinate-geometry-quizzes> | | Distance Formula  <https://www.youtube.com/watch?v=q3XS1m1TVeQ> |
| Teaching the distance formula  <http://www.freemathhelp.com/distance-formula.html> | | Distance Formula Geogebra  <https://drive.google.com/a/education.nsw.gov.au/file/d/0B9hzfac53d3tbF9wSXpFcEFOLUk/view?usp=sharing> |
| Video lesson on midpoint  <http://mathslinks.net/links/better-online-math-midpoint> | | Midpoint Formula  <https://www.youtube.com/watch?v=WVFTQEVhs_E> |
| Geogebra Quiz  <http://tube.geogebra.org/material/simple/id/232657> | |  |
| Geogebra Tube Demonstration  <http://tube.geogebra.org/material/simple/id/65075> | |  |
| Point-gradient and two-point form to derive equations of a line. | Geogebra Tube Demonstration  <http://tube.geogebra.org/material/simple/id/86938> | | Gradient Explanation  <https://www.youtube.com/watch?v=DQzkmEnVtLU>  Gradient Formula  <https://www.youtube.com/watch?v=b0iD3LlxcRU>  Gradient and Angle with x-axis  <https://www.youtube.com/watch?v=xI1KeDab84I>  Point Gradient Formula  <https://www.youtube.com/watch?v=9Nl-e_ATwIU> |
| General form: relationship between coefficients for parallel and perpendicular lines. |  | | Parallel Lines  <https://www.youtube.com/watch?v=iFM8VuvYNNc>  Perpendicular Lines  <https://www.youtube.com/watch?v=3rV0OXNErpE> |
| Perpendicular distance from a line to a point. | Geogebra file showing perpendicular distance from a line to a point <http://tube.geogebra.org/student/m3531> | | Perpendicular Distance  <https://www.youtube.com/watch?v=xZNShjJWp_g> |
| Finding equation of a line passing through a point and the intersection of two other lines (k-method). |  | | Intersection of Two Lines  <https://www.youtube.com/watch?v=nJ3DkFrTDbg> |