MFM2P

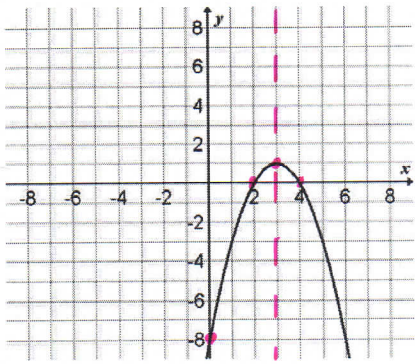
Date: Solutions

Analysis of the Parabola – Practice Questions

Complete the analysis for each of the following parabolas.

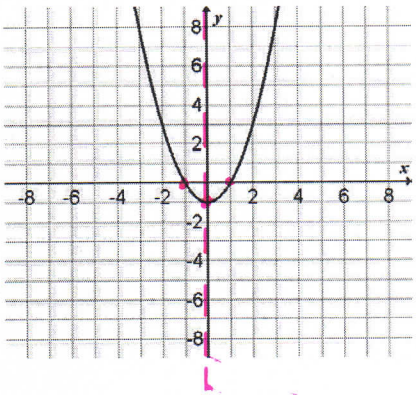
Draw the **axis of symmetry** and state its equation	x=3
Draw and state the **zeroes** (x-intercepts)	(2,0) (4,0)
Draw and state the **y-intercept**	(0,-8)
State the **direction of opening** of the parabola	down
Draw and state the **vertex** as an (x, y) point	(3,1)

max value: 3



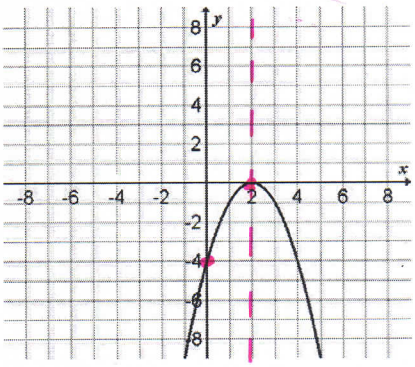
Draw the **axis of symmetry** and state its equation	x=0
Draw and state the **zeroes** (x-intercepts)	(1,0) (-1,0)
Draw and state the **y-intercept**	(0,-1)
State the **direction of opening** of the parabola	up
Draw and state the **vertex** as an (x, y) point	(0,-1)

min value: -1



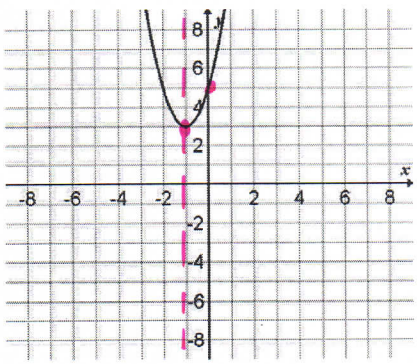
Draw the **axis of symmetry** and state its equation	x=2
Draw and state the **zeroes** (x-intercepts)	(2,0)
Draw and state the **y-intercept**	(0,-4)
State the **direction of opening** of the parabola	down
Draw and state the **vertex** as an (x, y) point	(2,0)

max value: 0



Draw the **axis of symmetry** and state its equation	x=-1
Draw and state the **zeroes** (x-intercepts)	None
Draw and state the **y-intercept**	(0,5)
State the **direction of opening** of the parabola	up
Draw and state the **vertex** as an (x, y) point	(-1,3)

min value: 3



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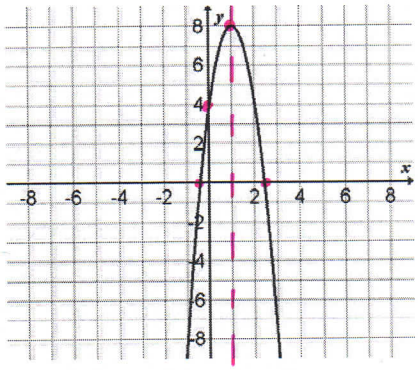
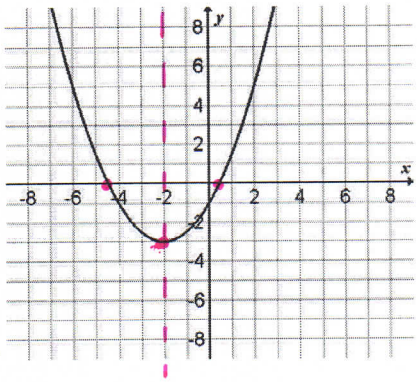
Draw the **axis of symmetry** and state its equation	$x = 1$
Draw and state the **zeroes** (x-intercepts)	$(2.5, 0)$ $(0, -.5)$
Draw and state the **y-intercept**	$(0, 4)$
State the **direction of opening** of the parabola	down
Draw and state the **vertex** as an (x, y) point	$(1, 8)$

max value: 8



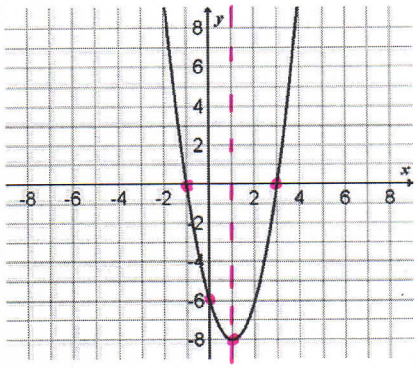
Draw the **axis of symmetry** and state its equation	$x = -2$
Draw and state the **zeroes** (x-intercepts)	$(0.5, 0)$ $(-4.5, 0)$
Draw and state the **y-intercept**	$(0, -1)$
State the **direction of opening** of the parabola	up
Draw and state the **vertex** as an (x, y) point	$(-2, -3)$

min value: -3



Draw the **axis of symmetry** and state its equation	$x = 1$
Draw and state the **zeroes** (x-intercepts)	$(3, 0)$ $(-1, 0)$
Draw and state the **y-intercept**	$(0, -6)$
State the **direction of opening** of the parabola	up
Draw and state the **vertex** as an (x, y) point	$(1, -8)$

min value: -8



Draw the **axis of symmetry** and state its equation	$x = -4$
Draw and state the **zeroes** (x-intercepts)	$(-4, 0)$
Draw and state the **y-intercept**	$(0, 8)$
State the **direction of opening** of the parabola	up
Draw and state the **vertex** as an (x, y) point	$(-4, 0)$

min value: 0