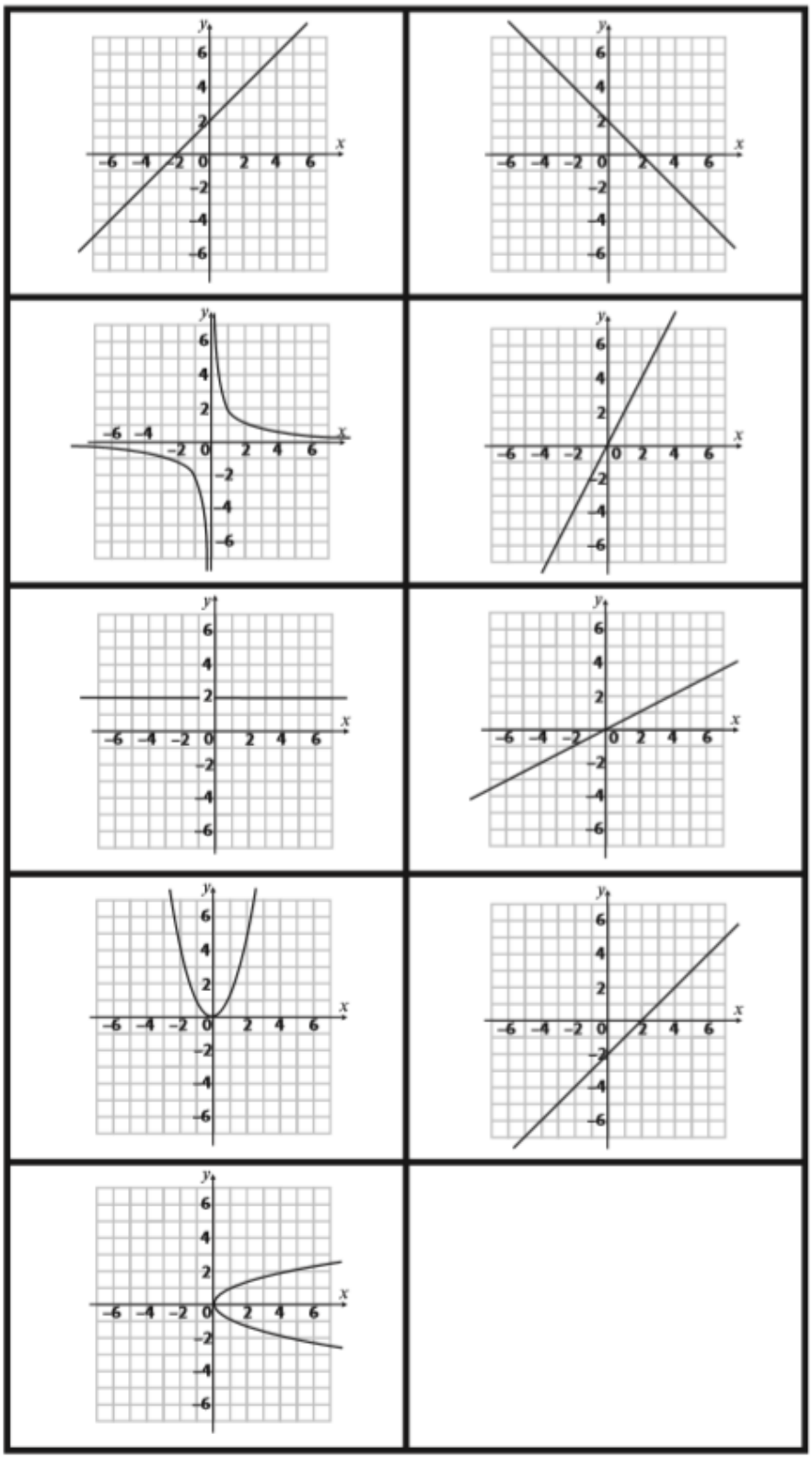
Problem of the Week: Week 5 (Sum1): Year 9: Algebra: Linear and Quadratic Graphs

- Recognise, sketch and produce graphs of linear and quadratic functions in one variable with appropriate scaling, using equations in x and y and the Cartesian plane
- Reduce a given linear equation in two variables to the standard form y=mx+c

Matching graphs

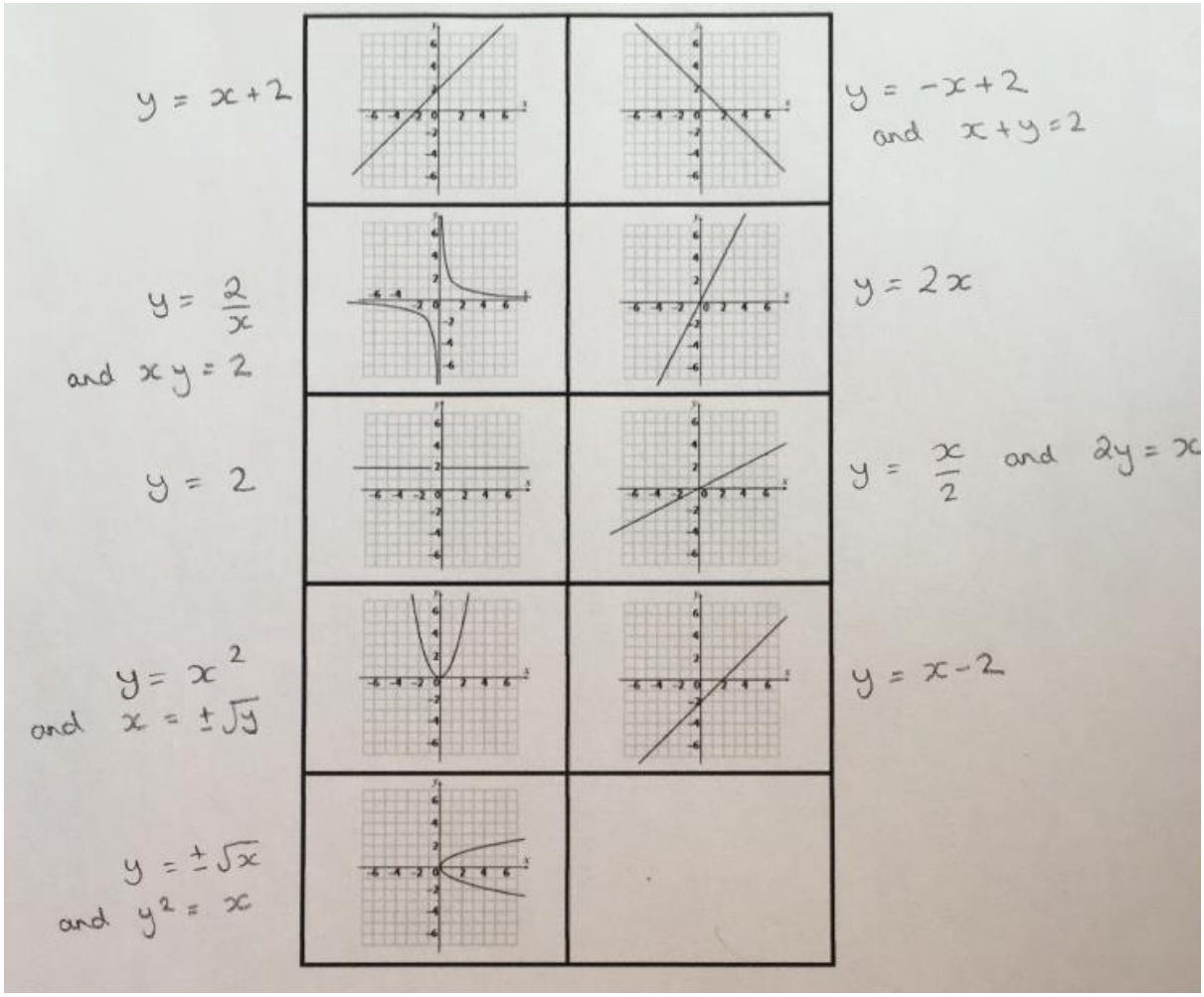
Can you match these equations to their graph (start with the easier ones)?

$y = x^2$	$y = 2x$
$y^2 = x$	$y = x + 2$
$2y = x$	$y = 2$
$y = x - 2$	$xy = 2$
$y = \pm\sqrt{x}$	$x + y = 2$
$y = \frac{2}{x}$	$y = \frac{x}{2}$
$y = -x + 2$	$x = \pm\sqrt{y}$



Standards Unit Box A7

Solutions:


y = x + 2
y = −x + 2
and x + y = 2
y = 2/x
and xy = 2
y = 2x
y = 2
y = x/2 and 2y = x
y = x²
and x = ±√y
y = x − 2
y = ±√x
and y² = x