

Autograph challenge answers

Handout 7.2

Award 2 points for any graph that you cannot distinguish from the one on the question sheet, *whether or not it has one of the equations given here*. (Students can be very inventive and come up with an equation that is quite unusual.)

Award 1 point to any graph that deviates by no more than about $\frac{1}{2}$ unit throughout its length (use your professional judgement).

- 1 $y = 1 - x$
- 2 $2x + 3y = 6$
- 3 $x = -1.5$
- 4 $y = |x + 2|$
- 5 $x = |y - 2|$
- 6 $|x| + |y| = 5$
- 7 $y = (x - 2)(x + 2)$ or $y = x^2 - 4$
- 8 $y = (x + 3)(x - 1)$ or $y = (x + 1)^2 - 4$
- 9 $y = -x^2/4$
- 10 $y = x^3 - 2$
- 11 $x = (y + 2)(y - 1)^2$
- 12 $y = |x^2 - 4|$
- 13 $y = -4/x$
- 14 $x^2 + y^2 = 16$
- 15 $y = |1/x|$
($y = 1/x^2$ gets 1 point.)
- 16 $y = 2 \sin(\pi x/2)$
- 17 $y = 2 \sin |\pi x/2|$
- 18 $y = x^{99}$
(any large odd power)