

Name

Date



# FACTORISING QUADRATIC EQUATIONS SHEET 9

Factorise these quadratic equations.

Operations in brackets are either both + or both –.

1)	$2x^2 + 5x + 2 = 0$	$(2x + 1)(x + 2) = 0$	$x = -\frac{1}{2}$ or $-2$
2)	$2x^2 + 4x + 2 = 0$	$(2x + \underline{\quad})(x + \underline{\quad}) = 0$	$x = \underline{\quad}$
3)	$2y^2 + 11y + 5 = 0$		
4)	$2y^2 + 7y + 5 = 0$		
5)	$2z^2 + 7z + 6 = 0$		
6)	$2z^2 + 8z + 6 = 0$		
7)	$2a^2 + 12a + 10 = 0$		
8)	$2a^2 + 9a + 10 = 0$		
9)	$2b^2 - 7b + 3 = 0$		
10)	$2b^2 - 5b + 3 = 0$		
11)	$2c^2 - 9c + 4 = 0$		
12)	$2c^2 - 6c + 4 = 0$		
13)	$2d^2 - 10d + 8 = 0$		
14)	$2d^2 - 8d + 8 = 0$		
15)	$2e^2 - 15e + 7 = 0$		
16)	$2e^2 - 9e + 7 = 0$		



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# FACTORISING QUADRATIC EQUATIONS

## SHEET 9 ANSWERS

1)	$2x^2 + 5x + 2 = 0$	$(2x + 1)(x + 2) = 0$	$x = -\frac{1}{2}$ or $-2$
2)	$2x^2 + 4x + 2 = 0$	$(2x + 2)(x + 1) = 0$	$x = -1$
3)	$2y^2 + 11y + 5 = 0$	$(2y + 1)(y + 5) = 0$	$y = -\frac{1}{2}$ or $-5$
4)	$2y^2 + 7y + 5 = 0$	$(2y + 5)(y + 1) = 0$	$y = -\frac{5}{2}$ or $-1$
5)	$2z^2 + 7z + 6 = 0$	$(2z + 3)(z + 2) = 0$	$z = -\frac{3}{2}$ or $-2$
6)	$2z^2 + 8z + 6 = 0$	$(2z + 2)(z + 3) = 0$	$z = -1$ or $-3$
7)	$2a^2 + 12a + 10 = 0$	$(2a + 2)(a + 5) = 0$	$a = -1$ or $-5$
8)	$2a^2 + 9a + 10 = 0$	$(2a + 5)(a + 2) = 0$	$a = -\frac{5}{2}$ or $-2$
9)	$2b^2 - 7b + 3 = 0$	$(2b - 1)(b - 3) = 0$	$b = \frac{1}{2}$ or $3$
10)	$2b^2 - 5b + 3 = 0$	$(2b - 3)(b - 1) = 0$	$b = \frac{3}{2}$ or $1$
11)	$2c^2 - 9c + 4 = 0$	$(2c - 1)(c - 4) = 0$	$c = \frac{1}{2}$ or $4$
12)	$2c^2 - 6c + 4 = 0$	$(2c - 4)(c - 1) = 0$	$c = 2$ or $1$
13)	$2d^2 - 10d + 8 = 0$	$(2d - 2)(d - 4) = 0$	$d = 1$ or $4$
14)	$2d^2 - 8d + 8 = 0$	$(2d - 4)(d - 2) = 0$	$d = 2$
15)	$2e^2 - 15e + 7 = 0$	$(2e - 1)(e - 7) = 0$	$e = \frac{1}{2}$ or $7$
16)	$2e^2 - 9e + 7 = 0$	$(2e - 7)(e - 1) = 0$	$e = \frac{7}{2}$ or $1$



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