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Math worksheet on *'Algebraic Functions - Factor the Quadratic Equation with Coefficient (Level 2)'*. Part of a broader unit on *'Polynomials and Quadratics - Advanced'*

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1

Which answer is the same expression as this

$$54d^2 - 3d - 40$$

a $(3d - 5)(6d + 8)$	b $(9d + 5)(d + 8)$
c $(9d - 5)(96d - 8)$	d $(40d - 5)(d + 8)$
e $(6d + 5)(9d - 8)$	f $(6d - 5)(d + 8)$

2

Which answer is the same expression as this

$$28x^2 - 20x - 72$$

a $(7x - 9)(x + 8)$	b $(20x - 9)(7x + 8)$
c $(4x + 9)(x + 8)$	d $(7x + 9)(4x - 8)$
e $(72x - 9)(x + 8)$	f $(4x - 9)(47x - 8)$

3

Which answer is the same expression as this

$$42b^2 + 12b - 30$$

a $(6b + 6)(7b - 5)$	b $(7b - 6)(76b - 5)$
c $(12b - 6)(6b + 5)$	d $(30b - 6)(b + 5)$
e $(7b + 6)(b + 5)$	f $(6b - 6)(b + 5)$

4

Which answer is the same expression as this

$$81y^2 + 144y + 63$$

a $(9y + 9)(y + 7)$	b $(9y + 9)(9y + 7)$
c $(9y + 9)(y + 7)$	d $(144y - 9)(9y + 7)$
e $(63y - 9)(y + 7)$	f $(9y + 9)(99y - 7)$

5

Which answer is the same expression as this

$$24z^2 - 0z - 24$$

a $(6z - 4)(64z - 6)$	b $(6z + 4)(z + 6)$
c $(24z - 4)(z + 6)$	d $(0z - 4)(4z + 6)$
e $(4z - 4)(z + 6)$	f $(4z + 4)(6z - 6)$

6

Which answer is the same expression as this

$$81n^2 - 27n - 10$$

a $(9n + 2)(n + 5)$	b $(9n + 2)(9n - 5)$
c $(27n - 2)(9n + 5)$	d $(9n - 2)(99n - 5)$
e $(9n - 2)(n + 5)$	f $(10n - 2)(n + 5)$

7

Which answer is the same expression as this

$$20x^2 + 76x + 72$$

a $(5x + 8)(x + 9)$	b $(4x + 8)(5x + 9)$
c $(4x + 8)(x + 9)$	d $(76x - 8)(4x + 9)$
e $(72x - 8)(x + 9)$	f $(5x + 8)(54x - 9)$