NON LINEAR RELATIONSHIPS : PARABOLAS AND OTHER GRAPHS

<\_\_\_question>

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<\_block>

Which of these is the radius of the circle with equation

*x² + y² = 36 ?*

<\_block>

[A]

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[B]

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What is the *y*-intercept of the cubic with equation

*y = (1 – x)(x + 2)(x – 3) ?*

<\_block>

[A]

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

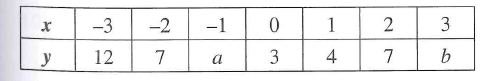
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[D]

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For the above graph the table of values has been completed by  *y = x² + 3.* Which of these is the value of *a* ?

<\_block>

[A]

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[D]

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Which of these is the value of b ?

<\_block>

[A]

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[C]

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If *y = (x – 3)(x + 2),* what is the value of *y* when *x = 3* ?

<\_block>

[A] 5

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[D]

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Which of these is a point of intersection of *y = x³* and *y = x²?*

<\_block>

[A] (1, 1)

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[A]

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Which of these is closest to the radius of the circle with equation *x²* + *y ²= 10 ?*

<\_block>

[A] 3 units

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[C]

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On a number plane Michael sketches *y = x*². If he turns the parabola upside down and moves it up 3 units, what is the equation of his new parabola ?

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[A] y = x² - 3

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[B]

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What is the vertex of the parabola with equation

*y = (x +1)²* + 3 *?*

<\_block>

[A] (-1, 3)

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[A]

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Which of these is the equation of a concave-down parabola

with a *y-*intercept of 3 ?

<\_block>

[A] *y = 3 – x²*

<\_block>

[B]

<\_block>

[C]

<\_block>

[D]

<\_block>

[A]