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| (12, 12a, 12 b) Interpret expressions that represent a quantity in terms of its <br> context. ${ }^{*}$ [A-SSE1] Interpret parts of an expression such as terms, factors, and <br> coefficients. [A-SSE1a] Interpret complicated expressions by viewing one or <br> more of their parts as a single entity. [A-SSE1b] |  |  |  |  |
| (17) Identify zeros of polynomials when suitable factorizations are available, <br> and use the zeros to construct a rough graph of the function defined by the <br> polynomial. [A-APR3] |  |  |  |  |
| (33) Write a function that describes a relationship between two quantities.* [F- <br> BF1] <br> a. Combine standard function types using arithmetic operations. [F-BF1b] |  |  |  |  | (19)


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| (42) (+) Analyze decisions and strategies using probability concepts (e.g., <br> product testing, medical testing, pulling a hockey goalie at the end of a game). <br> [S-MD7] |  |  |  |  |
| (9) (+) Add, subtract, and multiply matrices of appropriate dimensions. [N-VM8] |  |  |  |  |$\quad$| (11) (+) Understand that the zero and identity matrices play a role in matrix <br> addition and multiplication similar to the role of 0 and 1 in the real numbers. <br> The determinant of a square matrix is nonzero if and only if the matrix has a <br> multiplicative inverse. [N-VM10] |  |  |
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| (7) (+) Use matrices to represent and manipulate data, e.g., to represent <br> payoffs or incidence relationships in a network. (Use technology to <br> approximate roots.) [N-VM6] |  |  |
| (8) (+) Multiply matrices by scalars to produce new matrices, e.g., as when all <br> of the payoffs in a game are doubled. [N-VM7 |  |  |
| (10) (+) Understand that, unlike multiplication of numbers, matrix multiplication <br> for square matrices is not a commutative operation, but still satisfies the <br> associative and distributive properties. [N-VM9] |  |  |
| (26) (+) Find the inverse of a matrix if it exists and use it to solve systems of <br> linear equations (using technology for matrices of dimension 3 $\times 3$ or greater). <br> [A-REI9] |  |  |

