STATION 1

**Find the value of *c* such that each expression is a perfect-square trinomial.**

|  |  |  |
| --- | --- | --- |
| **1.** *a*2 + 8*a* + *c* | **2.** *x*2 − 16*x* + *c* | **3.** *m*2 + 20*m +* *c* |
| **4.** *p*2 − 14*p +* *c* | **5.** *y*2 − 10*y +* *c* | **6.** *b*2 + 18*b +* *c* |

STATION 2

**Solve each equation by completing the square. If necessary, round to the nearest hundredth.**

|  |  |  |
| --- | --- | --- |
| **10.** *b*2 + 10*b =* 75 | **11.** *y*2 − 18*y =* 63 | **12.** *n*2 − 20*n =* −75 |
| STATION 3 |  |  |

**Solve each equation by completing the square. If necessary, round to the nearest hundredth.**

|  |  |  |
| --- | --- | --- |
| **13.** *a*2 + 16*a* = −15 | **14.** *t*2 + 8*t* − 9 = 0 | **15.** *h*2 − 12*h* − 9 = 0 |

STATION 4

**Use the quadratic formula to solve each equation.**

|  |  |  |
| --- | --- | --- |
| **1.** *x*2 − 19*x* + 70 = 0 | **2.** *x*2 + 32*x* + 175 = 0 | **3.** 2*x*2 + 37*x* − 19 = 0 |

STATION 5

**Use the quadratic formula to solve each equation.**

|  |  |  |
| --- | --- | --- |
| **7.** 20*x*2 + 11*x* = 3 | **8.** 4*x*2 + 24*x* = −35 | **9.** 15*x*2 + 20 = 40*x* |

STATION 6

**Find the number of solutions of each equation.**

|  |  |  |
| --- | --- | --- |
| **13.** 3*x*2 + 6*x* + 8 = 0 | **14.** 3*x*2 − 5*x* = −6 | **15.** *x*2 + 100 = 20*x* |
| **16.** 5*x*2 − 7*x* = 2 | **17.** 9*x*2 + 4 = 12*x* | **18.** 3*x*2 + 5*x* = 2 |

STATION 1:



STATION 2:



STATION 3:



STATION 4:



STATION 5:



STATION 6:

