**Solve each equation by graphing the related function. If the equation has no real-number solution, write *no solution*.**

**1.** *x*2 – 16 = 0 **2.** *x*2 + 12 = 0 **3.** 2*x*2 – 18 = 0

**4.** 7*x*2 = 0

**Solve each equation by finding square roots. If the equation has no real-number solution, write *no solution*.**

|  |  |  |
| --- | --- | --- |
| **10.** *t*2 = 25 | **11.** *k*2 = 484 |  |
| **13.** *d*2 – 14 = –50 | **14.** 9*y*2 – 16 = 0 |  |

**Solve by factoring.**

|  |  |  |
| --- | --- | --- |
| **7.** *n*2 + 2*n –* 15 = 0 | **8.** *a*2 – 15*a +* 56 = 0 | **9.** *z*2 – 10*z +* 24 = 0 |
| **10.** 8*x*2 + 10*x +* 3 = 0 |  |  |
|  |  |  |

**Solve by factoring.**

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | **11.** 3*b*2 + 7*b –* 6 = 0 | **12.** 5*p*2 – 9*p –* 2 = 0 |
| **13.** *w*2 + *w =* 12 | **14.** *s*2 + 12*s =* –32 |  |
| **Solve by factoring.**

|  |  |  |
| --- | --- | --- |
| **7.** *n*2 + 2*n –* 15 = 0 | **8.** *a*2 – 15*a +* 56 = 0 | **9.** *z*2 – 10*z +* 24 = 0 |
| **10.** 8*x*2 + 10*x +* 3 = 0 | **11.** 3*b*2 + 7*b –* 6 = 0 | **12.** 5*p*2 – 9*p –* 2 = 0 |
| **13.** *w*2 + *w =* 12 | **14.** *s*2 + 12*s =* –32 | **15.** *d*2 = 5*d* |
| **16.** 3*j*2 – 20*j =* –12 | **17.** 12*y*2 + 40*y =* 7 | **18.** 27*r*2 + 69*r =* 8 |

 |  |  |

**Solve by factoring.**

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  | **15.** *d*2 = 5*d* |
| **16.** 3*j*2 – 20*j =* –12 | **17.** 12*y*2 + 40*y =* 7 | **18.** 27*r*2 + 69*r =* 8 |

**Find the value of *x* as it relates to each rectangle or triangle.**

**27.** Area = 60 cm2

**28.** Area = 234 yd2



**29.** Area = 20 in.2



**30.** Area = 150 m2

