

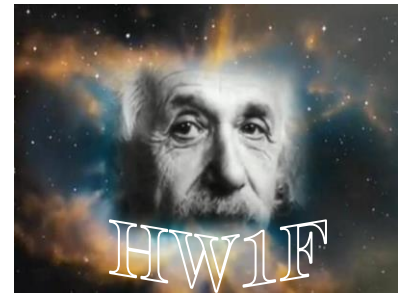
Solve by factoring.

1)  $3x^2 - 4x - 7 = 0$

2)  $4x^2 - 8x - 32 = 0$

3)  $(2x - 3)(x + 4) = 6$

4)  $(3y - 2)(y + 4) = 24$



Solve by completing the square.

5)  $x^2 - 10x = 1575$

6)  $2z^2 - 16z - 1768 = 0$

7)  $x^2 + 6x + 10 = 0$

8)  $y^2 + 10y + 35 = 0$

Solve using the quadratic formula. Give answers in simplest radical form.

9)  $5x^2 + 2x - 1 = 0$

10)  $3p^2 = 12p - 15$

11)  $\frac{4}{x} = \frac{x-6}{x-4}$

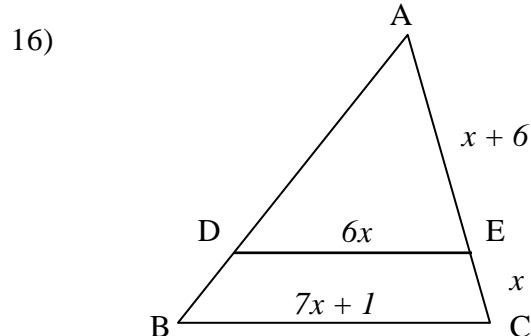
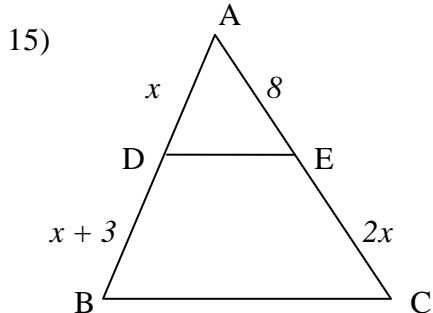
Solve using whichever method appears easiest.

12)  $8x^2 = 7 - 10x$

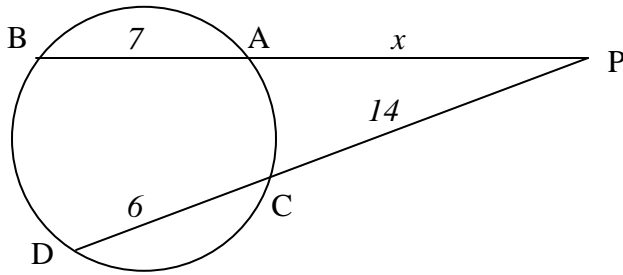
13)  $(3x - 2)^2 = 121$

14)  $(4x + 7)(x - 1) = 2(x - 1)$

For #15-16,  $\overline{DE}$  is parallel to  $\overline{BC}$ . Find the value of  $x$ .



17) By theorem,  $PA \cdot BP = PC \cdot PD$ . Find the value of  $x$ .



- |               |                        |                                |                                  |
|---------------|------------------------|--------------------------------|----------------------------------|
| 1) $-1, 7/3$  | 5) $45, -35$           | 9) $\frac{-1 \pm \sqrt{6}}{5}$ | 13) $-3, 13/3$                   |
| 2) $4, -2$    | 6) $34, -26$           | 10) $2 \pm i$                  | 14) $1, -5/4$                    |
| 3) $2, -9/2$  | 7) $-3 \pm i$          | 11) $2, 8$                     | 15) $6$                          |
| 4) $2, -16/3$ | 8) $-5 \pm i\sqrt{10}$ | 12) $1/2, -7/4$                | 16) $2$                          |
|               |                        |                                | 17) $\frac{-7 + \sqrt{1169}}{2}$ |