

3:00 AM ACHA3000

2012737

3/11/2020

① $x^4 \times x^6 \times x$
 $= x^{10}$

② $2x^2 \times 3x^3 \times 2x$
 $= 12x^5$

③ $\frac{x^4 \times x^5 \times x^2}{x^9}$
 $= x$

④ $(3x^2)^3$
 $= 9x^6$

⑤ $\sqrt{x} \times \sqrt{x}$
 $= x^2$

① $15x - 2 = 12x + 9$
 $15x - 12 = 2 + 9$
 $3x = 11$
 $x = \frac{11}{3}$

② $3(7 - 1) = 6(x + 3)$
 $21x - 3 = 6x + 18$
 $21x - 6x = 3 + 18$
 $15x = 21$
 $x = \frac{21}{15}$

③ $\frac{5x + 3}{4} = \frac{2x - 1}{9}$
 $9(5x + 3) = 4(2x - 1)$
 $45x + 27 = 8x - 4$
 $45x - 8x = -27 - 4$
 $37x = -31$
 $x = \frac{-31}{37}$

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① $x^2 + 10x + 21 = 0$

$(x+3)(x+7)$

$x+3=0 \quad x+7=0$

$x=-3 \quad x=-7$

② $x^2 - 3x + 2 = 0$

$(x-1)(x-2)$

$x-1=0 \quad x-2=0$

$x=1 \quad x=2$

③ $x^2 + 12x + 20 = 0$

$(x+10)(x+2)$

$x+10=0 \quad x+2=0$

$x=-10 \quad x=-2$

④ $x^2 - 64 = 0$

$(x-8)(x+8)$

$x-8=0 \quad x+8=0$

$x=8 \quad x=-8$

⑤ $2x^2 + 9x + 10 = 0$

$(2x+5)(x+2)$

$2x+5=0 \quad x+2=0$

$x=-2.5 \quad x=-2$

⑥ $14x^2 + 3x - 11 = 0$

$14x^2 + 3x - 11 = 0$

$-3 \pm \sqrt{3^2 - 4(14)(-11)}$

$2(14)$

$-3 \pm \sqrt{9+616}$

28

$-3 \pm \sqrt{75}$

28

$-3+75$

28

$\frac{18}{7}$

7

$-3-75$

28

$\frac{-18}{7}$

7

3

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$$\times 8 \quad 5x + 3y = 39 \quad (1)$$

$$\times 5 \quad 8x + 2y = 42 \quad (2)$$

$$40x + 24y = 312 \quad (3) - (4)$$

$$40x + 10y = 210 \quad (4)$$

$$34y = 102$$

$$y = \frac{102}{34}$$

$$y = 3 \rightarrow (1)$$

$$5x + 3(3) = 39$$

$$5x + 9 = 39$$

$$5x = 39 - 9$$

$$5x = 30$$

$$x = \frac{30}{5}$$

$$x = 6$$

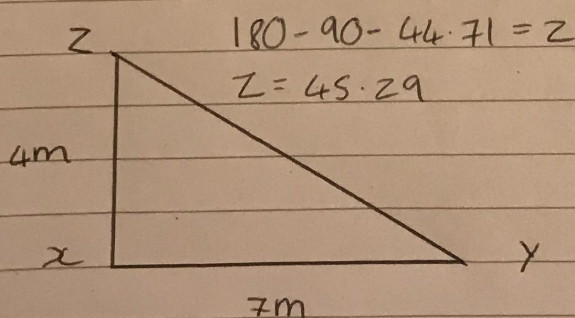
$$5(2x^2 - y^2) - x^2(x^2 - y) - x^2y - x^4$$

$$10x^2 - 5y^2 - 2x^2 - x^2y - x^2y - x^4$$

$$10x^2 - 5y^2 - 2x^2 - x^4$$

$$8x^2 - 5y^2 - x^4$$

$$7x^2 - 5y^2$$



$$\tan x = \frac{4}{7} = 0.5714$$

$$x = \tan^{-1}(0.5714)$$

$$x = 44.71$$

$$y = 44.71$$

$$(YZ)^2 = (7)^2 + (4)^2$$

$$(YZ)^2 = 49 + 16$$

$$(YZ)^2 = 65$$

$$(YZ)^2 = \sqrt{65}$$

$$YZ = 8.06m$$