

11-12-19 1<sup>st</sup> Trig

$$\begin{array}{r} 1+2=3 \\ 4+3=7 \\ \hline 5+5=10 \checkmark \end{array}$$

$$\textcircled{1} \begin{cases} 2x+y=9 \\ 3x-y=1 \end{cases}$$

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$$5x = 10$$

$$x=2$$

$$\begin{array}{l} 2(2)+y=9 \\ y=5 \end{array}$$

$$\textcircled{2} \begin{cases} x-y=6 \\ -x+3y=8 \end{cases}$$

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$$2y=14$$

$$y=7$$

$$\begin{array}{r} x-7=6 \\ +7 \quad +7 \\ \hline x=13 \end{array}$$

$$\textcircled{3} \begin{cases} [3x-y=5] \xrightarrow{M_2} 6x-2y=10 \\ 2x+2y=6 \Rightarrow 2x+2y=6 \end{cases}$$

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$$8x = 16$$

$$x=2$$

$$2(2)+2y=6$$

$$\begin{array}{r} 4+2y=6 \\ -4 \quad -4 \\ \hline 2y=2 \end{array}$$

$$y=1$$

$$\textcircled{4} \begin{cases} 3x - 5y = 7 \Rightarrow 3x - 5y = 7 \\ (2x + y = 9) \xrightarrow{M5} 10x + 5y = 45 \end{cases}$$

$$\underline{13x = 52}$$

$$x = 4$$

$$2(4) + y = 9$$

$$8 + y = 9$$

$$y = 1$$

$$\textcircled{5} \begin{cases} (2x - 3y = 4) \xrightarrow{M2} 4x - 6y = 8 \\ (7x + 2y = 39) \xrightarrow{M3} 21x + 6y = 117 \end{cases}$$

$$\underline{25x = 125}$$

$$x = 5$$

$$7(5) + 2y = 39$$

$$35 + 2y = 39$$

$$y = 2$$

- ⑥ A trip offers 5 days and 22 meals for \$930 or 7 days and 28 meals for \$1260. What are they charging for each day and each meal?

$$\begin{cases} 5d + 22m = 930 \xrightarrow{M-7} -35d - 154m = -6510 \\ 7d + 28m = 1260 \xrightarrow{M5} 35d + 140m = 6300 \end{cases}$$

$$\underline{-14m = -210}$$

$$5d + 22(15) = 930$$

$$m = 15$$

$$5d + 330 = 930$$

$$\underline{-330 \quad -330}$$

$$\frac{5d}{5} = \frac{600}{5}$$

$$d = 120$$

They are charging \$120 each day and \$15 for each meal.

⑦ 3 eggs and 2 pancakes cost \$6.30 or 2 eggs and 4 pancakes for \$8.20. How much were they charging for eggs and pancakes?

$$\begin{cases} 3 \cdot e + 2p = 6.30 & \xrightarrow{M-2} -6e - 4p = -12.60 \\ 2 \cdot e + 4p = 8.20 & \Rightarrow \underline{2e + 4p = 8.20} \\ & -4e = -4.40 \end{cases}$$

$$3(1.10) + 2p = 6.30$$

$$e = 1.10$$

$$p = 1.50$$

They charge \$1.50 for each pancake and \$1.10 for each egg.

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$$\begin{array}{r} 2+4=6 \\ 7+1=8 \\ \hline 9+5=14 \end{array}$$

$$\textcircled{1} \begin{cases} 3x+y=10 \\ 5x-y=14 \end{cases}$$

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$$8x = 24$$

$$x=3$$

$$\begin{aligned} 3(3)+y &= 10 \\ y &= 1 \end{aligned}$$

$$\textcircled{2} \begin{cases} 3x-2y=8 \\ 5x+2y=8 \end{cases}$$

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$$8x = 16$$

$$x=2$$

$$\begin{aligned} 5(2)+2y &= 8 \\ 10+2y &= 8 \\ 2y &= -2 \\ y &= -1 \end{aligned}$$

$$\textcircled{3} \begin{cases} 3x-2y=4 \Rightarrow 3x-2y=4 \\ 5x+y=11 \xrightarrow{\times 2} 10x+2y=22 \end{cases}$$

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$$13x = 26$$

$$x=2$$

$$\begin{aligned} 5(2)+y &= 11 \\ y &= 1 \end{aligned}$$

$$\textcircled{4} \begin{cases} 3x + 2y = 13 & \xrightarrow{M-3} -9x - 6y = -39 \\ 7x + 3y = 22 & \xrightarrow{M_2} 14x + 6y = 44 \end{cases}$$


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$$5x = 5$$

$$x = 1$$

$$3(1) + 2y = 13$$

$$3 + 2y = 13$$

$$2y = 10$$

$$y = 5$$

$\textcircled{5}$  Plan A offers 5 days and 10 meals for \$1350.

Plan B offers 7 days and 15 meals for \$1905.

How much are they charging for each day and each meal?

$$\begin{cases} 5d + 10m = 1350 & \xrightarrow{M-3} -15d - 30m = -4050 \\ 7d + 15m = 1905 & \xrightarrow{M_2} 14d + 30m = 3810 \end{cases}$$


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$$-d = -240$$

$$5(240) + 10m = 1350$$

$$1200 + 10m = 1350$$

$$m = 15$$

They are charging \$240 per day and \$15 per meal.

⑥ 3 eggs and 2 waffles cost \$6.30. 5 eggs and 3 waffles cost \$10. How much was it for each egg and each waffle?

$$\begin{cases} 3e + 2w = 6.30 \xrightarrow{M-3} -9e - 6w = -18.90 \\ 5e + 3w = 10 \xrightarrow{M \cdot 2} 10e + 6w = 20 \end{cases}$$


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$$e = 1.10$$

$$3(1.10) + 2w = 6.30$$

$$3.30 + 2w = 6.30$$

$$w = 1.50$$

You are paying \$1.50 per waffle and \$1.10 per egg.



11-12-19 4<sup>th</sup> Trig

$$\begin{array}{r} 2+4=6 \\ 3+1=4 \\ \hline 5+5=10\checkmark \end{array}$$

$$\textcircled{1} \begin{cases} 3x - y = 5 \\ 2x + y = 5 \end{cases}$$

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$$5x = 10$$

$$x = 2$$

$$\begin{aligned} 2(2) + y &= 5 \\ y &= 1 \end{aligned}$$

$$\textcircled{2} \begin{cases} 4x - y = 9 \\ 3x + y = 5 \end{cases}$$

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$$7x = 14$$

$$x = 2$$

$$\begin{aligned} 3(2) + y &= 5 \\ 6 + y &= 5 \\ y &= -1 \end{aligned}$$

$$\textcircled{3} \begin{cases} 2x + 3y = 13 \Rightarrow 2x + 3y = 13 \\ x - y = 4 \xrightarrow{\times 3} 3x - 3y = 12 \end{cases}$$

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$$5x = 25$$

$$x = 5$$

$$2(5) + 3y = 13$$

$$10 + 3y = 13$$

$$y = 1$$

$$\textcircled{4} \begin{cases} 11x - 2y = 1 & \xrightarrow{M_3} 33x - 6y = 3 \\ 7x + 3y = 22 & \xrightarrow{M_3} 14x + 6y = 44 \end{cases}$$


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$$47x = 47$$

$$x = 1$$

$$7(1) + 3y = 22$$

$$7 + 3y = 22$$

$$3y = 15$$

$$y = 5$$

$$\textcircled{5} \begin{cases} 2x + 11y = 8 & \xrightarrow{M_5} -10x - 55y = -40 \\ 5x + 13y = 20 & \xrightarrow{M_2} 10x + 26y = 40 \end{cases}$$


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$$\frac{-29y = 0}{-27 \quad -21}$$

$$y = 0$$

$$2x + 11(0) = 8$$

$$2x = 8$$

$$x = 4$$



⑥ Trip A 5 days and 14 meals for \$1410.

Trip B 7 days and 18 meals for \$1950.

How much is it per night and per meal?

$$\begin{cases} 5d + 14m = 1410 & \xrightarrow{M \cdot 7} -35d - 98m = -9970 \\ 7d + 18m = 1950 & \xrightarrow{M \cdot 5} 35d + 90m = 9750 \\ \hline & -8m = -120 \\ & m = 15 \end{cases}$$

$$5d + 14(15) = 1410$$

$$5d + 210 = 1410$$

$$5d = 1200$$

$$d = 240$$

You pay \$240 per day and \$15 per meal.

⑦ 3 tacos and 2 burritos for \$8.90 or 4 tacos and 3 burritos for \$12.60. What does it cost for each taco and burrito?

$$\begin{cases} 3t + 2b = 8.90 & \xrightarrow{M \cdot 3} -9t - 6b = -26.70 \\ 4t + 3b = 12.60 & \xrightarrow{M \cdot 3} 8t + 6b = 25.20 \\ \hline & -t = -1.50 \\ & t = 1.50 \end{cases}$$

$$3(1.50) + 2b = 8.90$$

$$4.50 + 2b = 8.90$$

$$2b = 4.40$$

$$b = 2.20$$

Each burrito is \$2.20 and each taco is \$1.50.

