## UNIT 2: EQUATIONS & INEQUALITIES Page 1 of 2

Total = Hart + (late) (#) ~~ Unit 2, Page 27 ~~

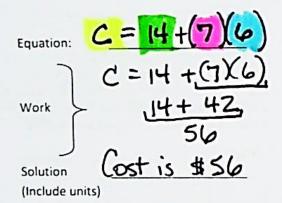
Objectives: I can write and solve equations to model real world problems.

## **SOLVING WORD PROBLEMS USING EQUATIONS Part 2**

Now that you have practiced writing equations to model situations, you will also find the solution to the problems by solving the equations.

Write an equation to model each situation and then solve to find the solution.

Billy plans to paint baskets. The paint costs \$14. The baskets cost \$7each.
 Write an equation that finds the total cost,
 C, if 6 baskets were made. Determine the cost of six baskets.



2) Felicia paid \$125 to join a tennis club. She pays an additional \$5 every time she uses one of the club's tennis courts. Write an equation to model this situation to determine n number of times Felicia played tennis if her total cost for playing tennis is \$300. How many times did she play?

Equation:	125 + (5)(7)= 00
	125 + 57 = 300
Work	57 = 175
ノ Solution	35 games 7 = 35
(Include uni	(s) oftennis

## Homework

Write an equation to model each situation and then solve to find the solution.

- 1) A water tank already contains 70 gallons of water when Ryan begins to fill it. Water flows into the tank at a rate of 6 gallons per minute. Write an equation to model this situation to find the volume of water in the tank, V, 30 minutes after Ryan begins filling the tank. Determine the final volume.
- 2) Jose works as server in a restaurant. He earns an hourly wage of S4 plus tips. Today he worked hours and was paid a total of S108. He received S62 in tips. Write an equation to determine how many hours, h, Jose worked in today's shift.

Equation	n:	_		
	)			
Work	}			

Equation:

Work

~~ Unit 2, P	Page 28 ~~ #	1
3) Shakira buys a new printer for her office for \$300. For tax purposes, she declares depreciation (loss of value) of \$100 per year. Let d be the declared value of the printer. Write and solve an equation to model the value of the computer after 5 years.	4) Rebekah has a small business making dessert baskets. She estimates that her fixed weekly costs for rent and electricity are \$250. The ingredients for one dessert basket cost \$3.00. Write and solve an equation if her total costs were \$325 to find how many dessert baskets, d, she made.	e
Equation:	Equation:	
Work	Work	
Solution	Solution	
(Include units)	(Include units)	
5) A kayak rental service charges a \$12 transportation fee and \$25 dollars an hour to rent a canoe. Write and solve an equation representing the cost, C if you are renting the kayak for 4 hours?	6) A tree in Abram's garden was 22 cm tall when it was first planted. Since then, it has grown approximately 7 cm per year. Write an equation and solve if the tree's height is now 78 cm to determine the number of years, y, since it was planted.	
Equation:	Equation:	
Work	Work	0
Solution	Solution	
(Include units)	(Include units)	
7) Members of the soccer team are walking to raise money for a local shelter. Hanna asked her mom for a \$20 donation then each of her friends donated \$2.50 each. Write and solve an equation to determine how many of her friends, f, donated if she raised a total of \$40.	8) Beaumont Bowling Lanes charges a flat fee of S15 plus S2 per game. Write and solve an equation to calculate the total bill, T, if Jonea and Casey played 4 games.	
	Equation:	
Equation:		
Work	Work	
	Solution	
Solution	(Include units)	0
(tochide units)		

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~~ Unit 2, P	ana20 ~~
9) A day camp charges done	
9) A day camp charges a S35 fee for activities plus S150 per week. Write and solve an equation to model this situation to find the number of weeks Lane attended camp if the total owed is S935	10) The roller rink charges an admittance fee of S6 plus \$3 per hour. Write and solve an equation to calculate how many hours, h. Shareef skated if he paid a total of \$20
Equation:	Equation:
Work	Work
Solution	Solution
(Include units)	(Include units)
per day. What is your total charge, C, if you needed the car for five days? Write an equation and solve	per large pizza. If the total cost is \$37, write and solve an equation to determine how many pizzas were ordered, p.
Equation:	Equation:
Work	Work
Solution	Solution
(Include units)	(Include units)
13) Tristan is pouring sand into a cylinder at a rate of 1.5 pounds/minute. The cylinder started with 8.  Lbs of sand before he started. How much sand did the cylinder hold if it took Tristan 10 minutes to fill it? Write and solve an equation using s for the volume of the cylinder.	14) A new candle is 15 inches tall. If it burns at a rate of 1/2 inch per hour, how long will it take for the candle to burn out? (Height would be zero.) Write and solve an equation using it for the number of hours.
Equation:	Equation:
Work	Work

Solution

(Include units)

Solution

(Include units)