Writing an equation and drawing its graph to model a real-world situation: Basic: Worksheet 11.2

Name ..... Date ..... Score .....

1. Let y be the amount of water in a pond and let x be the number of minutes water flows into it. Write an equation relating y to x and then graph the equation. Initially 500 liters of water is in the pond; the rate at which water flows into the pond is 12 liters per minute.
2. John's party costs $110 plus $7 for every guest he invites. Let y be the total cost of party and x be the number of guests. Write an equation in x and y and graph it.
3. Anita already has 5 bracelets, and new bracelets are priced $4 each. Let y be the total number of bracelets and x be the number of new bracelets. Write an equation in x and y and graph it.
4. Gracie is putting $220 in a savings account and adding $35 each week. Let y represent the total amount saved and let x represent the number of weeks Gracie has been adding money. Write an equation relating y and x and graph it.
5. Ella has walked 24 kilometers, further she plans to walk 2 kilometer during each trip to work. Let y be the total distance walked and x be the number of trips she makes. Write an equation an equation in x and y and graph it.
6. Nathan has made 15 liters of jam and will make an additional 2 liter of jam every day. If y is the number of liters of jam made and x is the number of days, write an equation relating y and x and graph it.
7. Donald has 8 stamps and buys 3 stamps during each day of vacation. Let y be the total number of stamps Donald has and x be the days of vacation. Write an equation in x and y and graph it.
8. Jesse has savings of $45 and earns $7 for each hour of lawn mowing. If y is the total amount with Jesse and x is the number of hours he works, write and equation in y and x and graph it.
9. Lyra has already written 35 pages and she writes 6 pages per hour. Let y be the total pages written and x the number of hours she writes. Write an equation in y and x and graph it.
10. Vista Car Rentals charge a base charge of $90 and $22 per hour for renting cars. Let y represent the total bill amount and x be number of hours the car is rented. Write an equation relating y and x and graph it.

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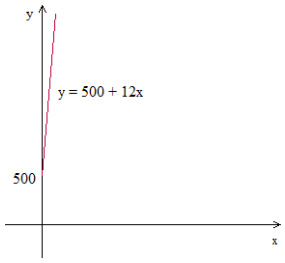
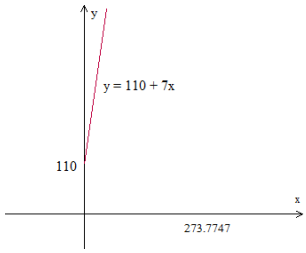
Solutions: Worksheet 11.2

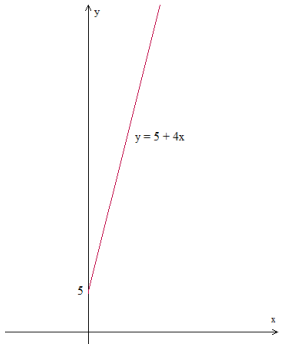
1. y = 500 + 12x



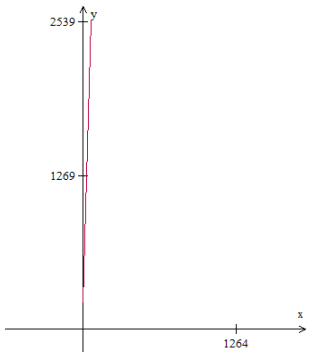
2. y =110 + 7x



3. y = 5 + 4x



4. y = 220 + 35x



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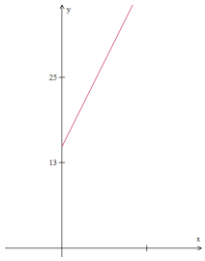
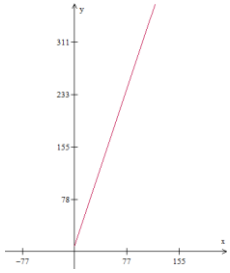
5. y = 24 + 2x

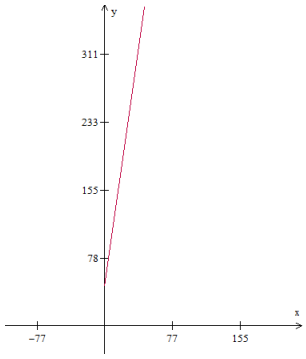
6. y = 15 + 2x



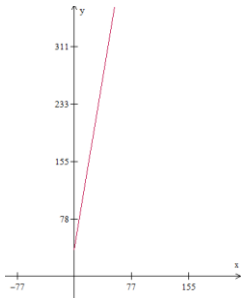
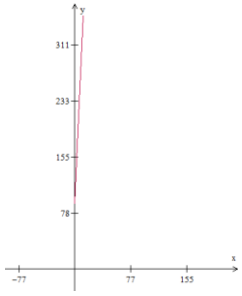
7. y = 8 + 3x



8. y = 45 + 7x



9. y = 35 + 6x



10. y = 90 + 22x