

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Task: Jaden's Phone Plan**

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**MCC9-12.A.REI.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

**MCC9-12.A.REI.3** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

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Jaden has a prepaid phone plan (**Plan A**) that charges 15 cents for each text sent and 10 cents per minute for calls.

1. If Jaden uses only text, write an equation for the cost  $C$  of sending  $t$  texts.
  - a. How much will it cost Jaden to send 15 texts? Justify your answer.
  - b. If Jaden has \$6, how many texts can he send? Justify your answer.
2. If Jaden only uses the talking features of his plan, write an equation for the cost  $C$  of talking  $m$  minutes.
  - a. How much will it cost Jaden to talk for 15 minutes? Justify your answer.
  - b. If Jaden has \$6, how many minutes can he talk? Justify your answer.
3. If Jaden uses both talk and text, write an equation for the cost  $C$  of sending  $t$  texts and talking  $m$  minutes.
  - a. How much will it cost Jaden to send 7 texts and talk for 12 minutes? Justify your answer.
  - b. If Jaden wants to send 21 texts and only has \$6, how many minutes can he talk? Will this use all of his money? If not, will how much money will he have left? Justify your answer.

Jaden discovers another prepaid phone plan (**Plan B**) that charges a flat fee of \$15 per month, then \$.05 per text sent or minute used.

4. Write an equation for the cost of Plan B.

In an average month, Jaden sends 200 texts and talks for 100 minutes.

5. Which plan will cost Jaden the least amount of money? Justify your answer.