ANSWERS FOR 2.6

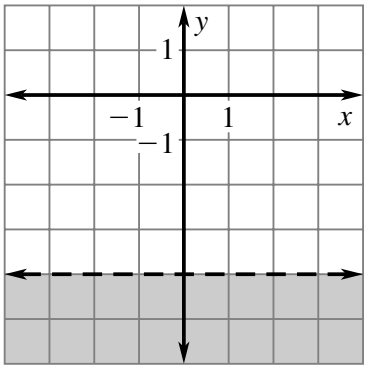
For use with pages 111–113

2.6 Guided Practice

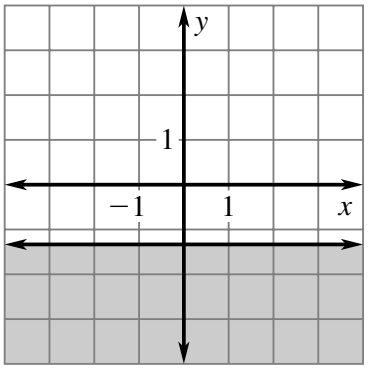
2. Dashed; solid; *Sample answer:* The points for which $Ax + By = C$ are solutions of the latter inequality and are included as part of the graph by using a solid line, but are not solutions of $Ax + By < C$.

4. True; for points (x, y) on the line, $y = 3x + 5$. For points (x, y) below the line, the inequality is satisifed, since the y values are smaller.

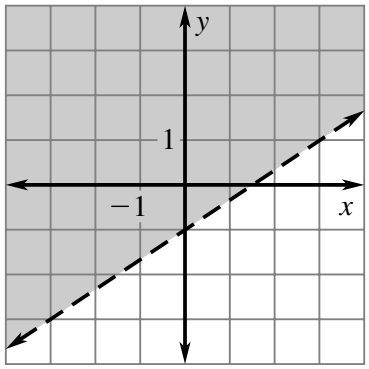
6.



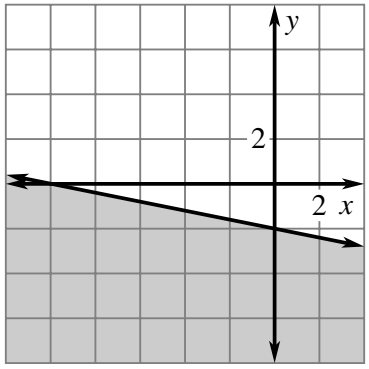
8.



10.



12.

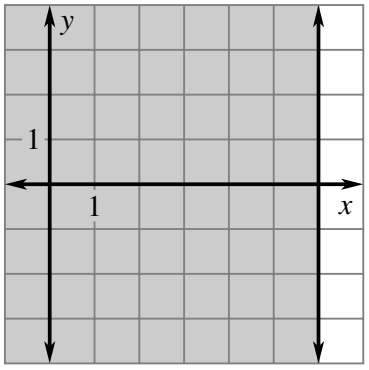


2.6 Practice and Applications

14. no; yes

16. yes; no

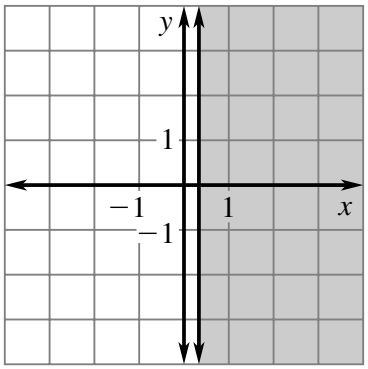
18.



ANSWERS FOR 2.6 (CONT.)

For use with pages 111–113

20.



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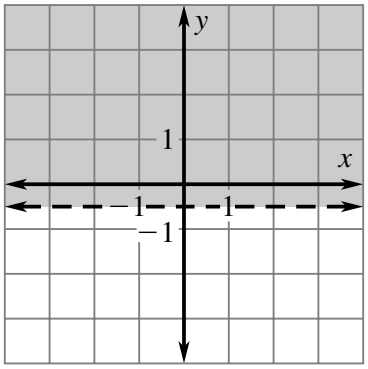
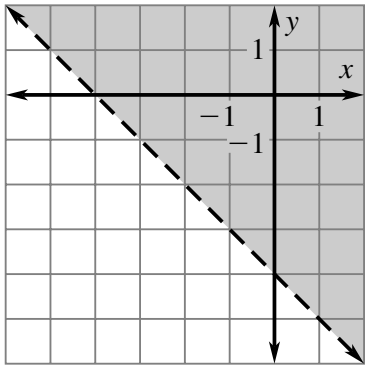


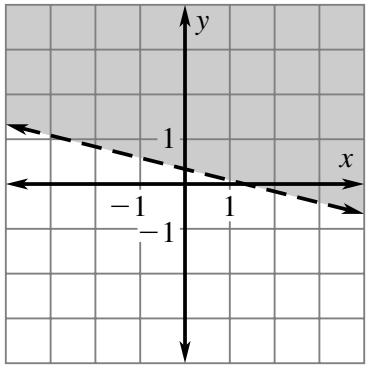
24. B

26. A

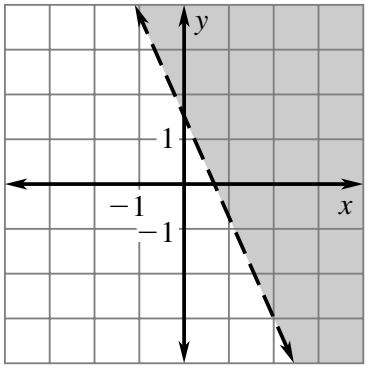
28.



30.

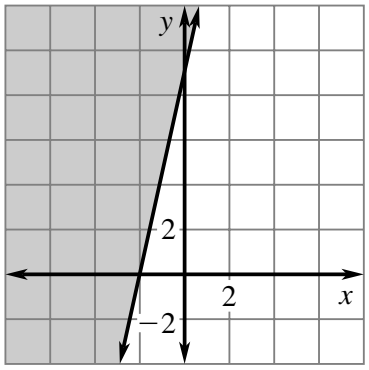


32.



34. A

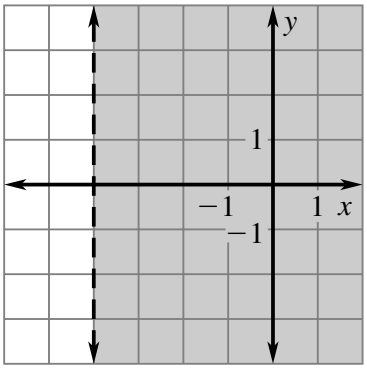
36.



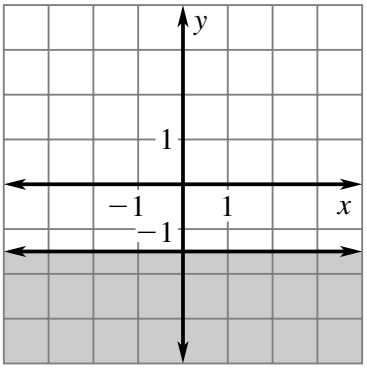
ANSWERS FOR 2.6 (CONT.)

For use with pages 111–113

38.



40.



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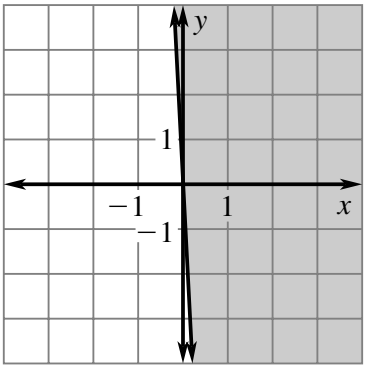

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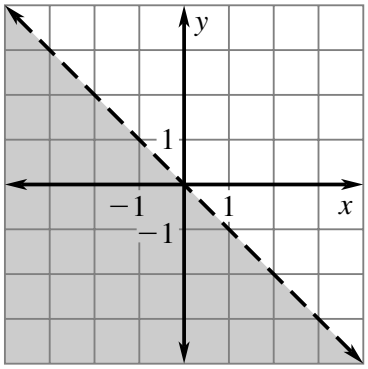
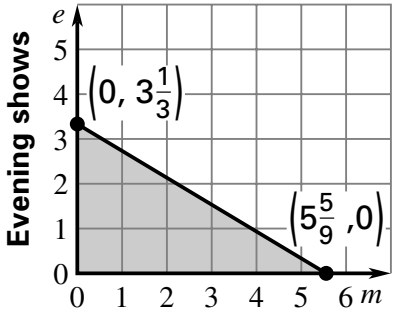


46. $296m + 338c \geq 1200$

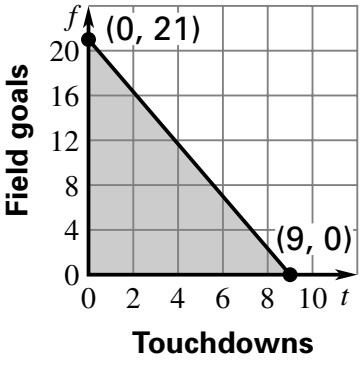
48. $4.5m + 7.5e \leq 25$

Movies



50. $7t + 3f \leq 63$

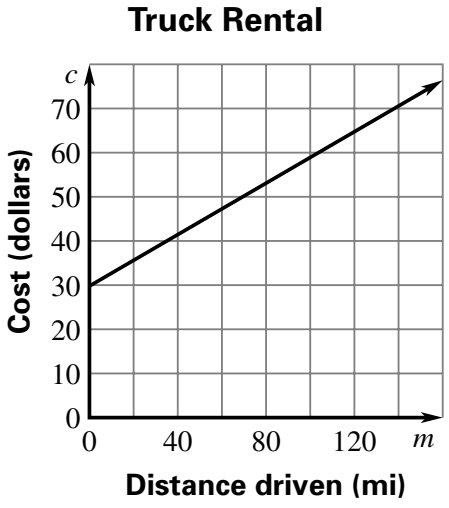
Football Scoring



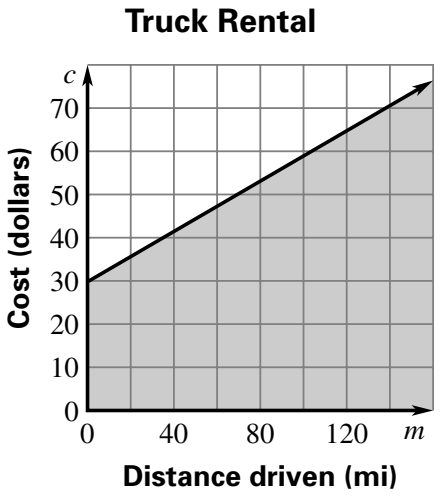
ANSWERS FOR 2.6 (CONT.)

For use with pages 111–113

52. a. $c = 29.99 + 0.29m$

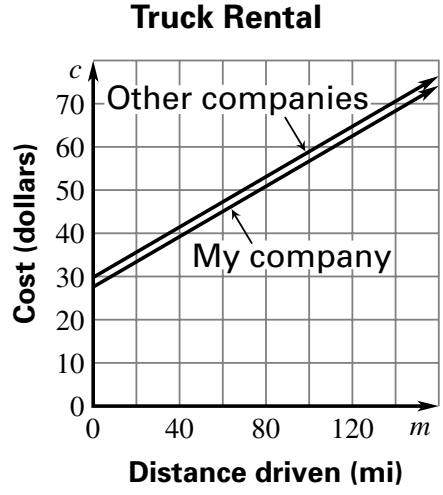


b.



c. *Sample answer:* If I charge a lower flat rate and not the per mile charge, I will always be lower in price than my competitors with the same mile rate.

d.



e. *Sample answer:* If I raise my flat rate my total cost would be more expensive until both cars have gone a distance that would make my total cost lower.

54. *Sample answer:* I used the x- and y-intercepts to find two points on the line. From there I used the point-slope formula to find the equation of the line. Since the line is drawn in full and the area shaded is less than 36, the equation is written $4x + 9y \leq 36$.

ANSWERS FOR 2.6 (CONT.)

For use with pages 111–113

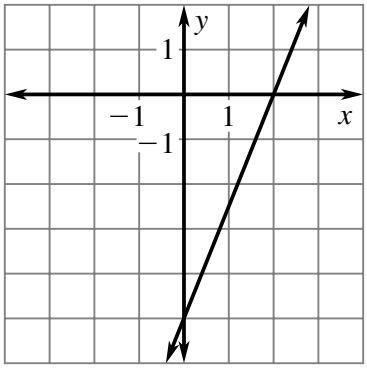
2.6 Mixed Review

56. 1.0×10^7

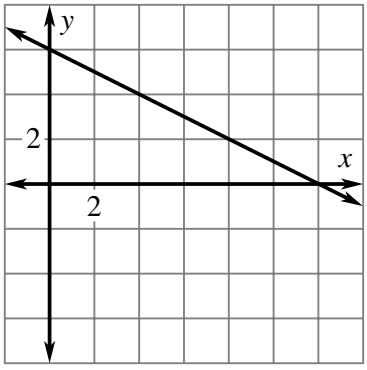
58. 2.03×10^5

60. 9×10^{-7}

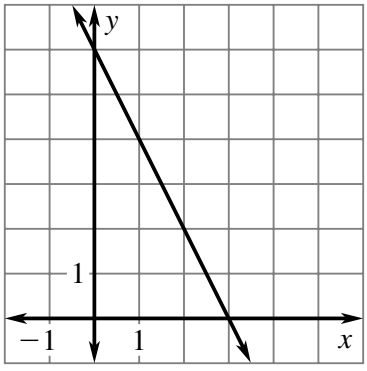
62.



64.



66.



68. $y = x$

70. $y = -\frac{8}{9}x + \frac{46}{9}$

72. $y = -\frac{15}{11}x + \frac{84}{11}$

74. domain: $35 \leq l \leq 45$
range: $-3 \leq w \leq 3$