

Lesson 3.2

Homework Answers

Pg 125 - #1-15 odd, 16-23, 27, 29, 33, 35, 51-57

1. $\overline{BE} \parallel \overline{CG}$; Conv. of Corr. \angle 's Post

3. $\overline{JO} \parallel \overline{LM}$; if 2 lines & a transversal form same-side int. \angle 's that are suppl. then the lines are \parallel .

5. $a \parallel b$; if 2 lines and a trans form same-side int. \angle 's that are suppl. the lines are \parallel .

7. none

9. none

11. $l \parallel m$; Conv. of Corr. \angle 's Post

13. $a \parallel b$; Conv. of Corr. \angle 's Post

15. $l \parallel m$; Conv. of Alt. Int. \angle 's Thm

16. a) Defn. of \perp

b) Given

c) All rt. \angle 's are \cong .

d) Conv. of Corr. \angle 's Post

17. a) $\angle 1$ b) $\angle 1$ c) $\angle 2$ d) $\angle 3$

e) Conv Corr \angle (Post)

18. 30

19. 50

20. 59

21. 31

22. 5

23. 20

26. a) corr. \angle 's

b) and c) $\angle 1, \angle 3$ (either order)

d) Conv. Corr. \angle 's

27. 10; $m\angle 1 = m\angle 2 = 70$

29. 2.5; $m\angle 1 = m\angle 2 = 30$

33. $\overline{PL} \parallel \overline{NA}$ by Conv. of Same-Side Int. \angle 's Thm.

35. $\overline{PN} \parallel \overline{LA}$ by Conv. of Same-Side Int. \angle 's Thm.

51. C

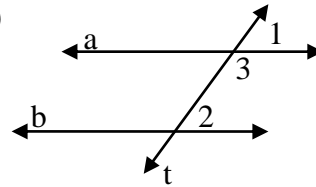
52. F

53. B

54. a) $136 + (x + 21) = 180$ so $x = 23$ (or equiv equation resulting in $x = 23$).

b) $x + 21 = 2x$ so $x = 21$. Lines c & d are not \parallel because x cannot = both 21 & 23 (or equiv explanation).

55. a)



b) $m\angle 1 + m\angle 3 = 180$.

If $2x - 38 + 6x + 18 = 180$ then $x = 25$.

The \angle measures are $2x - 38 = 12$ and 25,

but $12 \neq 25$. So a can't be \parallel to b .

56. $m\angle 1 = 70$ since it is a suppl. of the $110^\circ \angle$.

$m\angle 2 = 110$ since same-side int. \angle are suppl.

57. $m\angle 1 = 66$ since alt. int. \angle 's are \cong .

$m\angle 2 = 180 - 94 = 86$ since same-side int. \angle 's are suppl.