

11-15 all

17-27 odd

28-30 all

33-36 all

GEOMETRY (SECTION 1.5)

- 7. True, angles share a common side and vertex
- 9. False, angles form a straight line so they are supplementary
- 11. $\angle DOC, \angle AOB$
- 12. $\angle EOC$
- 13. $\angle EOC$
- 14. $\angle DOC, \angle AOB$
- 15. $\angle AOB, \angle DOC; \angle AOD, \angle BOC$
- 17. No, not marked as congruent
- 19. Yes, the two angles form a linear pair

21. No, \overline{JC} and \overline{DC} aren't marked as congruent

23. Yes, they are both formed by \overrightarrow{JE} and \overrightarrow{DE}

25.



$$m\angle EFG + m\angle GFH = 180$$

$$2n + 21 + 4n + 15 = 180$$

$$6n + 36 = 180$$

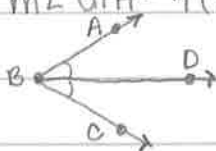
$$6n = 144$$

$$n = 24$$

$$m\angle EFG = 2(24) + 21 = \boxed{69}$$

$$m\angle GFH = 4(24) + 15 = \boxed{111}$$

28.



$$m\angle ABC - m\angle ABD = 24$$

$$4x - 12 - 24 = 24$$

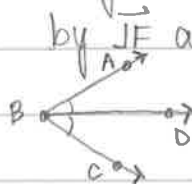
$$4x - 12 = 48 \quad m\angle ABC = 4(15) - 12$$

$$4x = 60$$

$$x = \boxed{15}$$

$$= \boxed{48}$$

27.



$$m\angle ABD = m\angle DBC$$

$$5x = 3x + 10$$

$$2x = 10$$

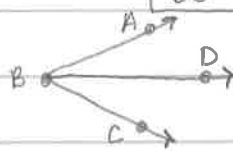
$$x = \boxed{5}$$

$$m\angle ABC = 5x + 3x + 10$$

$$= 5(5) + 3(5) + 10$$

$$= \boxed{50}$$

29.



$$m\angle ABD = m\angle CBD$$

$$4x - 16 = 2x + 6$$

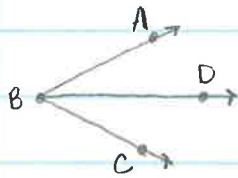
$$2x = 22 \quad m\angle ABC = 4x - 16 + 2x + 6$$

$$x = \boxed{11}$$

$$= 4(11) - 16 + 2(11) + 6$$

$$= \boxed{56}$$

30.



$$m\angle ABD = m\angle CBD$$

$$3x + 20 = 6x - 16$$

$$36 = 3x$$

$$x = 12$$

$$m\angle ABC = 3x + 20 + 6x - 16$$

$$= 3(12) + 20 + 6(12) - 16$$

$$= 112$$

33.

$$m\angle ACD = 90$$

$$34. m\angle BCD = 90 - 65$$

$$= 25$$

35.

$$m\angle ECD = 90 + 65$$

$$= 155$$

$$36. m\angle ACE = 90 + 25$$

$$= 115$$