

2

NAME _____ DATE _____

Cumulative Review

For use after Chapters 1–2

Find the distance between the two points. Round your answers to the nearest hundredth. (1.3)

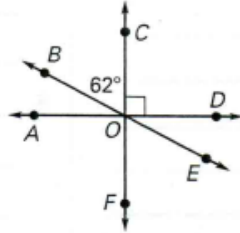
1. $A(6, 2), B(0, -3)$
2. $C(-7, 1), D(4, -5)$
3. $E(-2, -2), F(5, -4)$
4. $G(0, -4), H(3, 0)$

Find the coordinates of the midpoint of a segment with the given endpoints. (1.5)

5. $A(7, 1), B(3, 3)$
6. $A(7, 1), B(-2, 6)$
7. $A(3, -7), B(-2, 1)$
8. $A(0, -4), B(3, 8)$

Find the measure of the angle without using a protractor. (1.4 and 1.6)

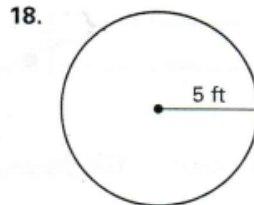
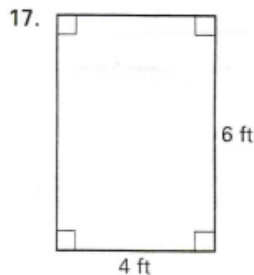
9. $\angle AOB$
10. $\angle DOE$
11. $\angle EOF$
12. $\angle BOF$



$\angle A$ and $\angle B$ are supplementary. Find $m\angle A$ and $m\angle B$. (1.6)

13. $m\angle A = 6x + 8$
14. $m\angle A = 13x - 5$
- $m\angle B = 10x - 20$
- $m\angle B = 20x + 53$
15. $m\angle A = x + 39$
16. $m\angle A = 3x + 10$
- $m\angle B = 6x - 6$
- $m\angle B = 7x + 20$

Find the perimeter (or circumference) of each figure. (Where necessary, use $\pi \approx 3.14$.) (1.7)



Find the inverse, converse, and contrapositive of the statement. (2.1)

19. If two angles are right angles, then they are congruent.
20. If $x = 2$, then $x^2 = 4$.

Cumulative Review

For use after Chapters 1–2

Rewrite the biconditional statements as a conditional statement and its converse. (2.2)

21. Two angles are complementary if and only if their measures add to 90° .
22. Three points are collinear if and only if they lie on the same line.

Given that the statement is of form $p \rightarrow q$, write p and q . Then write the inverse and the contrapositive of $p \rightarrow q$, in words. (2.3)

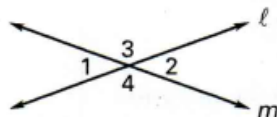
23. If it is snowing, then Jennifer will ride the bus to school.
24. If the car runs out of gas, then it will not run.

Name the property used to make the conclusion. (2.4)

25. If $2x = 6$, then $x = 3$.
26. If $42^\circ + m\angle 2 = 90^\circ$, then $m\angle 2 = 48^\circ$.
27. If $AB = CD$, then $CD = AB$.
28. If $m\angle D = 40^\circ$ and $m\angle E = 90^\circ - m\angle D$, then $m\angle E = 50^\circ$.
29. If $m\angle J = 20^\circ$, then $3(m\angle J) = 60^\circ$.
30. If $WX = YZ$, then $WX + AB = YZ + AB$.

Use the diagram and the given information to complete the missing reasons in the proof. (2.5 and 2.6)

31. **Given:** lines ℓ and m
Prove: $\angle 1 \cong \angle 2$



Statements
1. lines ℓ and m
2. $\angle 1$ and $\angle 3$ are supplementary.
3. $\angle 2$ and $\angle 3$ are supplementary.
4. $\angle 1 \cong \angle 2$

Reasons
1. _____ (a) _____
2. _____ (b) _____
3. _____ (c) _____
4. _____ (d) _____

32. **Given:** $AC = BD$
Prove: $\overline{AB} \cong \overline{CD}$



Statements
1. $AC = BD$
2. $AB + BC = AC$
3. $BC + CD = BD$
4. $AB + BC = BC + CD$
5. $BC = BC$
6. $AB = CD$
7. $\overline{AB} \cong \overline{CD}$

Reasons
1. _____ (a) _____
2. _____ (b) _____
3. _____ (c) _____
4. _____ (d) _____
5. _____ (e) _____
6. _____ (f) _____
7. _____ (g) _____