**Game 1 Study Guide**

**1.** If *DM* = 35, what is the value of *r*?

r + 3 4r - 28



**A** 12

**B** 13

**C** 14

**D** 15

**Items 2–3. Points *P, Q,* and *S* are collinear.**

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**2.** What is ?

**3.** If a ray *QT* bisects , what  
will be the measure of one of the  
resulting angles?

**4.** Points *L*, *M*, and *N* are collinear.  
You are given *LM* = 13 and *LN* = 20. What is a possible value of *MN*?

**A** 6 **C** 8

**B** 7 **D** 9

**5.** Ray *BD* bisects so that = (*x* + 6) and   
= (2*x* − 12). What is *x*?

**A** 12 **C** 16

**B** 14 **D** 18

Vocab:

Plane:

Point:

Line:

Collinear points:

Angle:

Angle Bisector:

Perpendicular Lines:

Perpendicular Bisector:

Vertical Angles:

Complementary Angles:

Supplementary Angles:

Postulate:

Ray:

Segment:

Parallel Lines:

**6.** What is the distance between  
points *F*(2, 9) and *G*(4, 14)? Round  
to the nearest whole number.

**Items 7–8. Use the number line below.**



**7.** What is *KN* + *IK*?

**8.** What is the coordinate of the midpoint of ?

**12.** What is the length of a  
segment with endpoints at  
(−3, 4) and (4, 4)?

**A** 1 **C** 7

**B** 4 **D** 8

**Items 16–17. Use the diagram shown.**



**16.** The statement “Angle 2 is congruent to angle 4” is justified by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**17.** If  equals (4*x* + 2) and   
equals 110, what is the value of *x*?

**A** 14 **C** 16

**B** 15 **D** 17