Name: $\qquad$

## Distance, Segment, and Rays

Use the segment addition postulate to write an equation for the segment.
1)

2)

3)


Find the indicated distance using the given number line.

4) $A C$
5) CF
6) EB
7) GF
8) HD
9) GA
10) $D A$
11) BH

For the given coordinate of G and H , find GH .
12) G:-7; H:5
13) $\mathrm{G}: 4 \frac{4}{5} ; \mathrm{H}: 8$
14) G:-6.2; H:-2.5

Give three names for the indicated ray.

15) Endpoint C containing H .
16) Endpoint $D$ containing $E$.
17) Endpoint $B$ containing $A$.

## Use the given information, to answer each of the following questions

18) $A, B$, and $C$ are three collinear points such that $B$ is between $A$ and $C$.
$A B=\frac{3}{4} B C$ and $A C=28$. Find $A B$.
19) $P, Q$, and $R$ are three collinear points such that $Q$ is between $P$ and $R$.
$P Q=\frac{4}{7} Q R$ and $P R=33$. Find $Q R$.
20) For $\overline{A B}$, the coordinate of $A$ is -6 and $A B=7$. Find all possible coordinates of point $B$.
21) $A, B$, and $C$ are three collinear points such that $B$ is between $A$ and $C$. $A B=\frac{3}{7} A C$ and $A B=9$. Find $B C$.
22) Point $T$ is on $\overrightarrow{M G}$, but $T$ is not in between points $M$ and $G$. $M G=\frac{5}{4} G T$ and $M T=18$. Find $M G$.
23) For $\overline{G H}$, the coordinate of G is $2 \mathrm{x}-6$ and the coordinate of H is $\mathrm{x}-5$. Find the coordinate of G if $\mathrm{GH}=6$.
