

1.5 Homework: Solve the problems below to answer the riddle. *Show work for credit*

What is a line's favorite kind of fruit?

Find each answer in the key at the right and put the corresponding letter in the answer blank at the bottom of the page.

1. Points  $A$ ,  $B$ , and  $C$  are collinear, and  $A$  is between  $B$  and  $C$ .  
 $AB = 4x - 3$ ,  $BC = 7x + 5$ , and  $AC = 5x - 16$ .

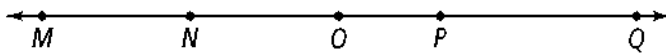
Find each value.

- $BC$
- $AB$
- $AC$

2. On a number line,  $G = 8$  and  $H = -3$ . If  $H$  is the midpoint of  $\overline{GI}$ , find the coordinate of  $I$ .

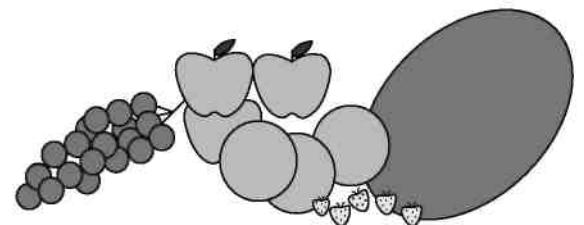
3.  $J$  is the midpoint of  $\overline{KL}$ . Find  $KJ$  if  $KL = 38$ .

For 4–6, refer to the number line below.



4. Suppose  $O$  is the midpoint of  $\overline{MQ}$  and  $N$  is the midpoint of  $\overline{MO}$ . If  $NO = 8$ , find  $MQ$ .
5. Suppose  $P$  is the midpoint of  $\overline{NQ}$ ,  $OP = 11$ , and  $OQ = 35$ . Find  $NO$ .
6. If  $NO = 2y + 11$ ,  $OP = 3y - 2$ ,  $NP = 6y + 3$ , and  $MP = 64$ , find each value.
- $NO$
  - $MN$

a	-14
b	20
c	-18
d	-13
e	32
f	3
g	23
h	39
i	16
j	41
k	-11
l	12
m	13
n	89
o	44
p	-26
q	6
r	19
s	45
t	25
u	42
v	10
w	-7
x	16
y	27
z	50



An  $\overline{1c} \overline{3} \overline{2} \overline{1a} \overline{6a} \overline{4}$  because it is made of  $\overline{1b} \overline{4} \overline{6a} \overline{5} \overline{4} \overline{1a} \overline{6b} \overline{1b}$ .