

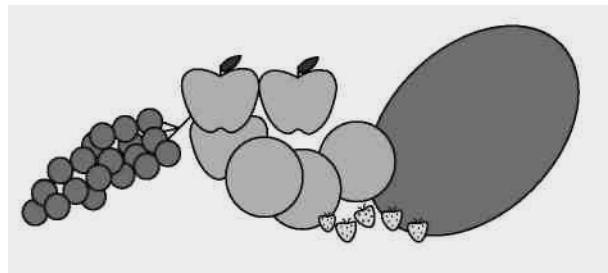
# 1-3 Puzzle: What Is a Line's Favorite Kind of Fruit?

## Measuring Segments

Solve the problems below to answer the riddle:

### WHAT IS A LINE'S FAVORITE KIND OF FRUIT?

Look for your numeric answer in the key along the right side of the page, and put the corresponding letter to the left of that answer in the answer blank for the question shown here:



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

#### STATION 1

1. Points  $A$ ,  $B$ , and  $C$  are collinear and  $A$  is between  $B$  and  $C$ .

$$AB = 4x - 3, BC = 7x + 5, \text{ and } AC = 5x - 16.$$

Find each value:

- a.  $BC$                       b.  $AB$                       c.  $AC$

#### STATION 2

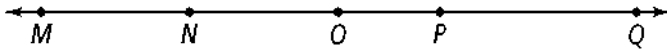
2. On a number line,  $G = 8$  and  $H = -3$ . If  $H$  is the midpoint of  $\overline{GI}$ , find the coordinate of  $I$ .

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

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

### STATION 3

For 4–5, refer to the number line below.

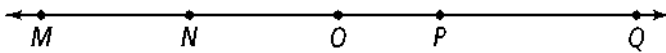


4. Suppose  $O$  is the midpoint of  $\overline{MQ}$  and  $N$  is the midpoint of  $\overline{MO}$ . If  $NO = 8$ , find  $MQ$ .

5. Suppose  $P$  is the midpoint of  $\overline{NQ}$ ,  $OP = 11$ , and  $OQ = 35$ . Find  $NO$ .

### STATION 4

For 6, refer to the number line below.



6. If  $NO = 2y + 11$ ,  $OP = 3y - 2$ ,  $NP = 6y + 3$ , and  $MP = 64$ , find each value:  
a.  $NO$                       b.  $MN$