1

2. **DIFFERENT WORDS, SAME QUESTION** Which is different? ~~Find "both" answers.~~

A Find $AC + CB$.

C Find $BC - AC$.

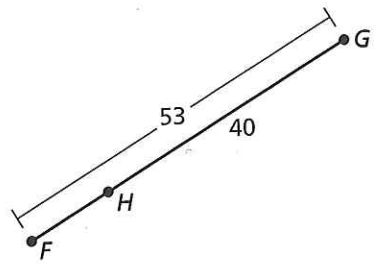
B Find AB.

D Find $CA + BC$.

2

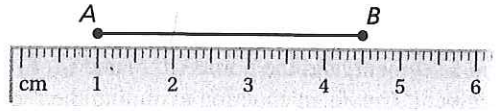
Find FH.

22.



3

ERROR ANALYSIS In Exercises 23 and 24, describe and correct the error in finding the length of $\overline{AB}$.

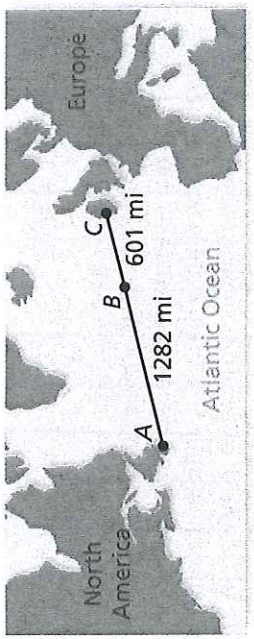


23. X $AB = 1 - 4.5 = -3.5$

24. X $AB = |1 + 4.5| = 5.5$

h

26. MODELING WITH MATHEMATICS In 2003, a remote-controlled model airplane became the first ever to fly nonstop across the Atlantic Ocean. The map shows the airplane's position at three different points during its flight. Point A represents Cape Spear, Newfoundland, point B represents the approximate position after 1 day, and point C represents Mannin Bay, Ireland. The airplane left from Cape Spear and landed in Mannin Bay. *(See Example 4.)*

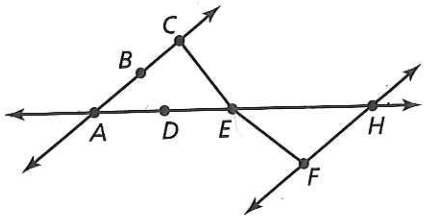


a. Find the total distance the model airplane flew.

b. The model airplane's flight lasted nearly 38 hours. Estimate the airplane's average speed in miles per hour.

5

27. USING STRUCTURE Determine whether the statements are true or false. ~~Explain your reasoning~~.



a. B is between A and C.

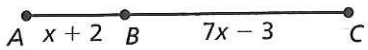
b. C is between B and E.

c. D is between A and H.

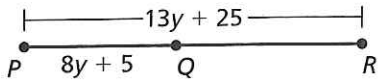
6

28. MATHEMATICAL CONNECTIONS Write an expression for the length of the segment.

a. $\overline{AC}$



b. $\overline{QR}$



7

29. MATHEMATICAL CONNECTIONS Point S is between points R and T on $\overline{RT}$. Use the information to write an equation in terms of x. Then solve the equation and find RS, ST, and RT.

a. $RS = 2x + 10$
$ST = x - 4$
$RT = 21$

b. $RS = 3x - 16$
$ST = 4x - 8$
$RT = 60$

c. $RS = 2x - 8$
$ST = 11$
$RT = x + 10$

d. $RS = 4x - 9$
$ST = 19$
$RT = 8x - 14$

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9

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10

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d. $RS = 4x - 9$
$ST = 19$
$RT = 8x - 14$

11

32. MAKING AN ARGUMENT Your friend and your cousin discuss measuring with a ruler. Your friend says that you must always line up objects at the zero on a ruler. Your cousin says it does not matter. Decide who is correct and explain your reasoning.

12

All

Maintaining Mathematical Profi

Simplify. *(Skills Review Handbook)*

38. $\frac{-4 + 6}{2}$

39. $\sqrt{20 + 5}$

Solve the equation. *(Skills Review Handbook)*

42. $5x + 7 = 9x - 17$

43. $\frac{3 + y}{2} = 6$

Sketch $\overrightarrow{QR}$ and $\overleftrightarrow{QS}$ in one plane.

13

Write the equation of a line through the points (7, 12) and (5, 20) in slope intercept form.

(15)

Draw an equilateral triangle. The markings must show all three sides are $\cong$.

Can two lines be congruent? Why or why not?

1) C

2) FH = 13

3) (23) Switch order

4.5 − 1

(24) Subtract.

4) (a) 1883

5) (a) T (b) F (c) T (d) F

6) (a) 8x − 1

(b) 5y + 20

7) 3x + 6 = 21

RS = 20, ST = 1

8) 7x − 24 = 60

RS = 20 ST = 40

9) 2x + 3 = x + 10

RS = 6 RT = 17

10) 4x + 10 = 8x − 14

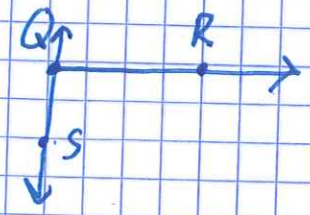
RS = 15 RT = 34

11) You don't have to.

12) 38) 1 39) 5

42) x = 6 43) y = 9

13)



14) m = −4

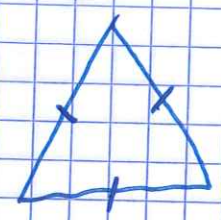
12 = −4(7) + b

+28 +28

40 = b

y = −4x + 40

15)



16) No