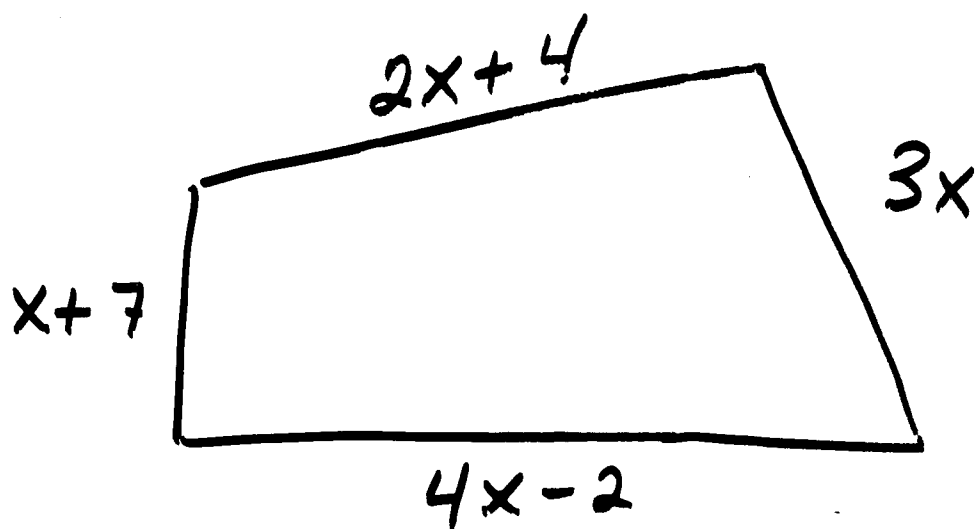


BE-1B

TUESDAY 11-13-07

- ① If the perimeter of the figure shown is 59 inches, what is the value of x ?



ANSWER WB

① Pg 75 # 3

ADD ALL SIDES = perimeter

$$\begin{array}{r} 2x + 4 \\ x + 7 \\ 4x - 2 \\ + 3x \\ \hline \end{array}$$

$$10x + 9 = 59$$

$$10x = 50$$

$$\boxed{x = 5}$$

1.
List ALL THE factors of 10

$$1 \cdot 10 = 10$$

$$2 \cdot 5 = 10 \quad \text{Any more?}$$

The factors of 10 are 1, 2, 5, 10.

💡 "factories make products"

List all the factors of 11

$$1 \cdot 11 = 11$$

The factors of 11 are 1, 11.

prime number A ^{whole} number that has only
2 factors, one and itself!
NOTE: 1 is NOT prime.

Composite number A ^{whole} number, greater than 1,
that has more THAN 2
factors.

List all the factors of 24

How do you know you got them all?

Try this:

$$\begin{array}{c}
 24 \\
 \swarrow \searrow \\
 (2) \cdot 12 \\
 \swarrow \searrow \\
 (2) \cdot 6 \\
 \swarrow \searrow \\
 (2) \cdot (3)
 \end{array}$$

$2 \cdot 2 \cdot 2 \cdot 3 \text{ or } 2^3 \cdot 3$

↑↑
prime FACTORIZATION OF 24

The factors of 24 can be found by taking every possible combination of $2 \cdot 2 \cdot 2 \cdot 3$ using all 4 numbers each time

$$2 \cdot (2 \cdot 2 \cdot 3) = 2 \cdot 12$$

$$(2 \cdot 2) \cdot (2 \cdot 3) = 4 \cdot 6$$

$$(2 \cdot 2 \cdot 2) \cdot 3 = 8 \cdot 3$$

Finally, add $1 \cdot 24$

FACTORS OF 24 are 1, 2, 3, 4, 6, 8, 12, 24

Note: you can find the Prime Factorization of a negative number, just make the final one a -1 instead of a positive 1

EX^{P.F.}

$$\begin{array}{c}
 -20 \\
 \swarrow \searrow \\
 4 \quad (5) \\
 \swarrow \searrow \\
 (2) \quad (2)
 \end{array}$$

$$-1 \cdot 2 \cdot 2 \cdot 5 \text{ or } -1 \cdot 2^2 \cdot 5$$

EX^{P.F.} 90
Pg 475

EX^{P.F.} 45

EX^{P.F.} -32

EX^{P.F.} -150

Home-
work: Find the Prime Factorization of
60, 64, -80, 100, 121, 212

• QUESTIONS OF Q2 EXAM 1 Graded