
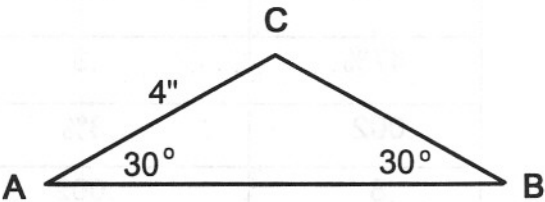


## Quiz 4 on Exponents, Roots, Algebra, and Geometry

Solve the following:		
1) $16^2 = (16)(16) = 256$	2) $.5^2 = (.5)(.5) = .25$	3) $\sqrt{.36} = .6$
4) $\sqrt{.01} = .1$  Note that $(.1)(.1) = .01$	5) If $x = 36$ , then $\sqrt{x} = \sqrt{36} = 6$	6) $5^3 =$ $(5)(5)(5) = 125$
7) Which expression does not equal 6?		
A) $\frac{6}{1}$ B) $\sqrt{36}$ C) $36^2$ D) $\frac{18}{3}$ Answer <u>  C  </u>		
8) Evaluate for $a = 4$ and $b = 1$ .	Solve the following for x.	
$3a - 2b$ $3(4) - 2(1)$ $12 - 2$ $10$	9) $x - 4 = 16$ $x - 4 + 4 = 16 + 4$ $x = 20$	10) $\frac{x}{3} = 5$ $(3)\frac{x}{3} = 5(3)$ $x = 15$
11) $3x = 27$ $\frac{3x}{3} = \frac{27}{3}$ $x = 9$	12) $3x - 4 = 17$ $3x - 4 + 4 = 17 + 4$ $3x = 21$ $3x/3 = 21/3$ $x = 7$	13) $10x - 3x = 28$ $7x = 28$ $7x/7 = 28/7$ $x = 4$
14) $6x + 6 = 2x + 18$ $6x + 6 - 6 = 2x + 18 - 6$ $6x = 2x + 12$ $6x - 2x = 2x - 2x + 12$ $4x = 12$ $4x/4 = 12/4$ $x = 3$	15) $2(x + 3) = 36$ $2x + 6 = 36$ $2x + 6 - 6 = 36 - 6$ $2x = 30$ $2x/2 = 30/2$ $x = 15$	16)  Write an equation for 4 times a number decreased by 3 equals 27.  $4x - 3 = 27$
17A) $\angle ACB$ measures $120^\circ$ degrees.		
17B) BC measures 4 inches.		
17C) $\triangle ABC$ is a (an) isosceles triangle.		
		

18) G right

19) E obtuse

20) H acute

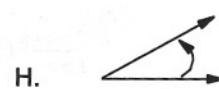
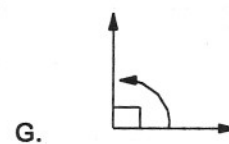
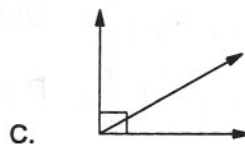
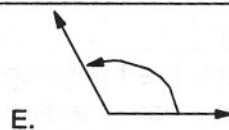
21) B straight

22) D supplementary

23) C complementary

24) F vertical angle

25) A adjacent angles

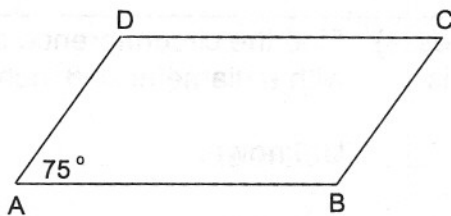


26) ABCD is a parallelogram.  
Find the number of degrees in:

A)  $\angle ABC$  has  $105^\circ$

B)  $\angle ADC$  has  $105^\circ$

C)  $\angle BCD$  has  $75^\circ$

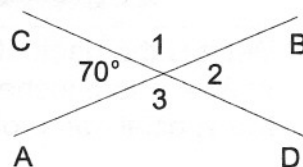


27) AB and CD are intersecting lines.  
Find the number of degrees in:

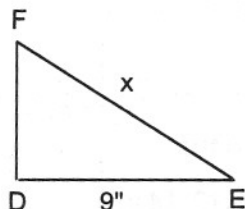
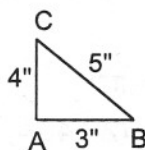
A)  $\angle 1$  has  $110^\circ$

B)  $\angle 2$  has  $70^\circ$

C)  $\angle 3$  has  $110^\circ$



28)  $\triangle ABC \sim \triangle DEF$



A) AC corresponds to side DF. These sides are proportional (equal or proportional).

B)  $\angle C$  corresponds to  $\angle F$ . These angles are equal (equal or proportional).

C) Find the length of side EF.

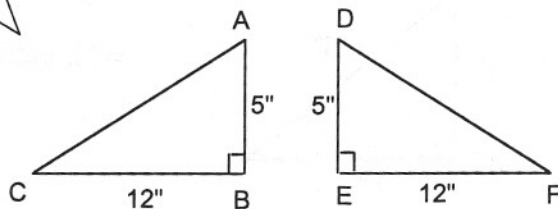
$$\frac{AB}{DE} = \frac{BC}{EF}$$

$$\frac{3}{9} = \frac{5}{x}$$

$$3x = 45$$

$$x = 15 \text{ inches}$$

29)



A)  $\angle B$  and  $\angle E$  measure  $90^\circ$ .

B)  $\triangle ABC \cong \triangle DEF$  ( $\cong$  or  $\sim$ )

C) Why? SAS or 2 sides and their included angle are equal.