

key answer worksheet 3

Name:

Worksheet(3)

Grade:7(A)

Subject : Math (Unit (6):Basic Geometry)

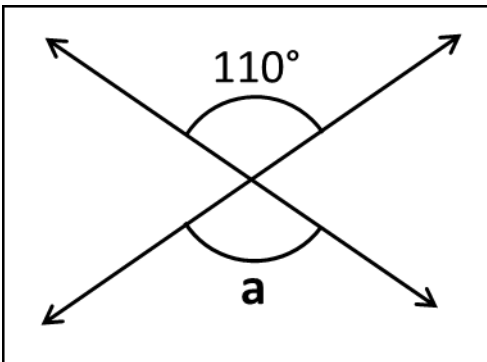
Vertically Opposite Angles

Date :

Exercise (1):

Find the values of **a, b, c, d** in each of the digrams below:

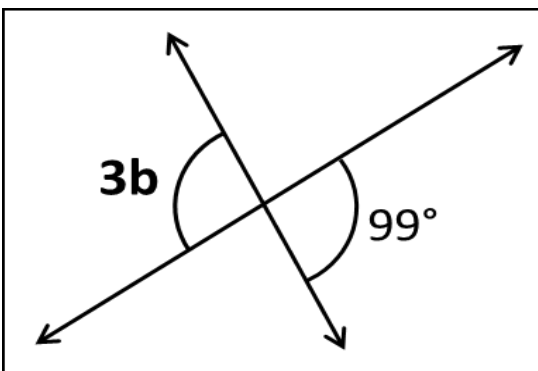
(Explain your answer)



a = 110° (vert. opp. ∠s)

Answer :

a = 110



3b = 99

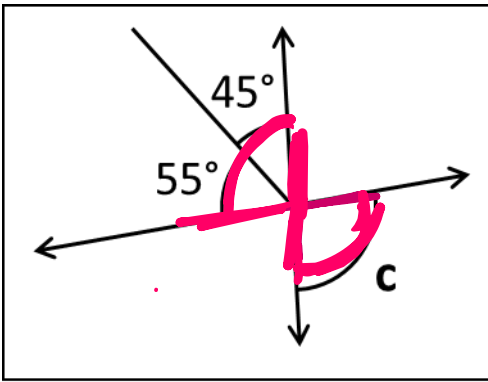
Vert. opp. ∠s

$$\frac{3 \times b = 99}{3} \quad \frac{99}{3}$$

b = 33

Answer :

b = 33°

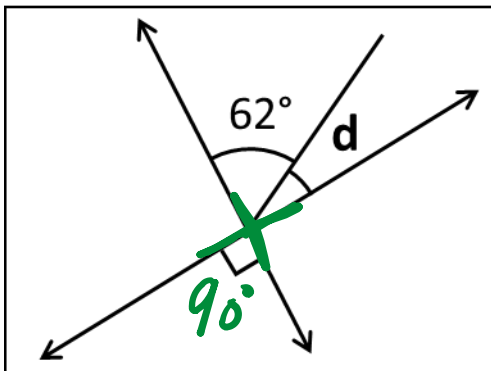


$$C = 45 + 55$$

$$= 100$$

Vert.
opp.
∠s

Answer : $c = 100^\circ$



$$d + 62 = 90$$

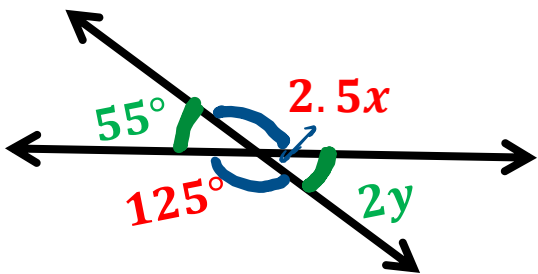
vert. opp.
∠s

$$d + 62 = 90$$

$$\begin{array}{r} -62 \quad -62 \\ \hline d = 28 \end{array}$$

Answer : $d = 28^\circ$

Exercise (2): Find the values of x and y ? (Explain your answer)



$$2.5x = 125$$

$$\frac{2.5x}{2.5} = \frac{125}{2.5}$$

$$x = \frac{125 \times 10}{2.5 \times 10}$$

$$= \frac{1250}{25} = 50$$

$$2y = 55$$

$$\frac{2y}{2} = \frac{55}{2}$$

$$y = 27.5$$

Exercise (3): Find the value of x ? (Explain your answer)

$$5(x-1) = 2x + 97$$

$$5(x-1) = 2x + 97$$

$$5x - 5 = 2x + 97$$

$$-2x$$

$$-2x$$

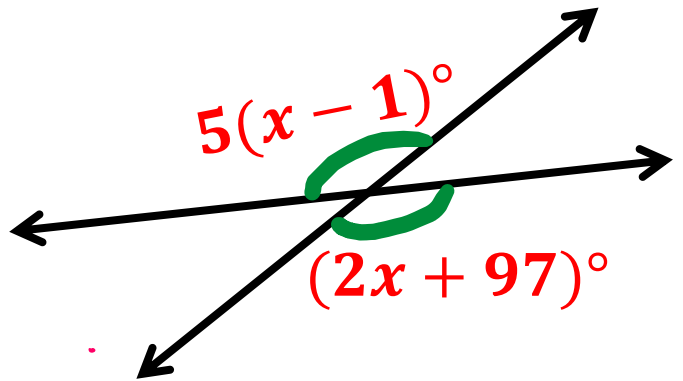
$$3x - 5 = 97$$

$$+5$$

$$+5$$

$$\frac{3x}{3} = \frac{102}{3} \rightarrow x = 34$$

vert. opp. Δ s are equal



Exercise (4): Find the value of w ? (Explain your answer)

$$2(w+4) = 16w + 1$$

$$2w + 8 = 16w + 1$$

$$-2w$$

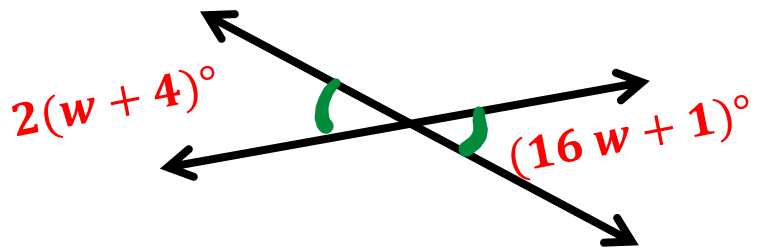
$$-2w$$

$$8 = 14w + 1$$

$$-1$$

$$-1$$

$$\frac{7}{14} = \frac{14w}{14} \Rightarrow w = \left[\frac{1}{2}\right] = [0.5]$$



vert. opp. Δ s
are equal

Exercise (5): Find the value of m ? (Explain your answer)

$$7m + 7.6 = 48.4 + 3m$$

$$-3m$$

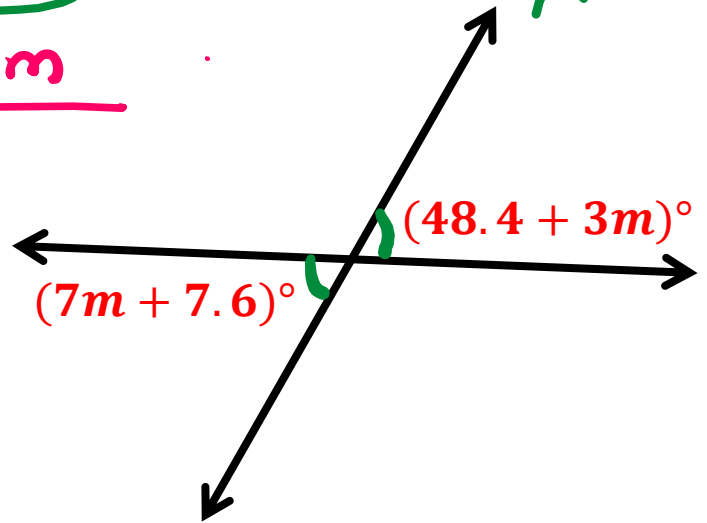
$$-3m$$

$$4m + 7.6 = 48.4$$
$$-7.6 \quad -7.6$$

$$\frac{4m}{4} = \frac{40.8}{4}$$

$$m = 10.2$$

Vert. opp. \angle s
are equal



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