

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

Score: \_\_\_\_\_

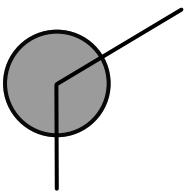
## Worksheet #3

**ANGLE MEASURES IN RATIO**

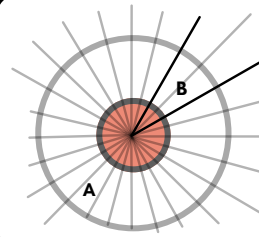
**Learning goal:** Students will apply their understanding of angle types and angle sums using ratios and algebraic reasoning to calculate unknown angle measures in various geometrical contexts

**Find the measure of A, B and C using ratios.**

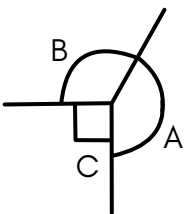
$A : B = 1 : 2$



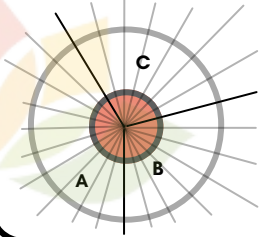
$B : A = 1 : 11$



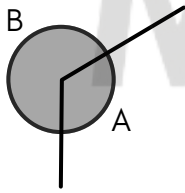
$B : A = 7 : 2$



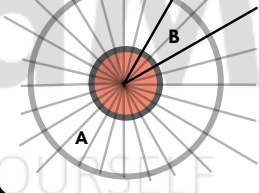
$B : C = 5 : 1$



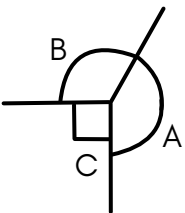
$A : B = 5 : 1$



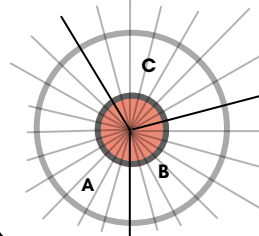
$A : B = 3 : 1$



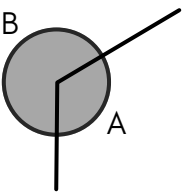
$A : B = 5 : 4$



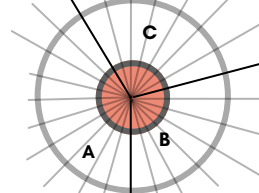
$A : C = 11 : 1$



$A : B = 7 : 5$



$A : B = 4 : 5$



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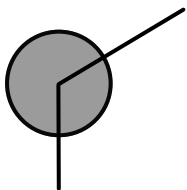
Score: \_\_\_\_\_

## Worksheet #3(Answers)

**ANGLE MEASURES IN RATIO**

**Learning goal:** Students will apply their understanding of angle types and angle sums using ratios and algebraic reasoning to calculate unknown angle measures in various geometrical contexts

**Find the measure of A, B and C using ratios.**



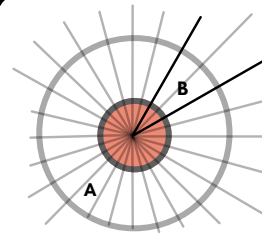
$$A : B = 1 : 2$$

$$2x + 1x = 3x$$

$$3x = 360$$

$$x = 120$$

$$A = 1x = 120^\circ, B = 2x = 240^\circ$$



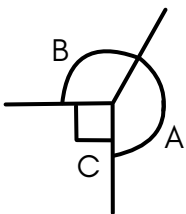
$$B : A = 1 : 11$$

$$1x + 11x = 12x$$

$$12x = 360$$

$$x = 30$$

$$B = 1x = 30^\circ, A = 11x = 330^\circ$$



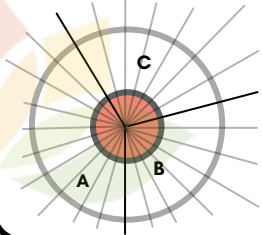
$$B : A = 7 : 2$$

$$7x + 2x = 9x$$

$$9x = 360$$

$$x = 40$$

$$B = 2x = 80^\circ, A = 7x = 280^\circ$$



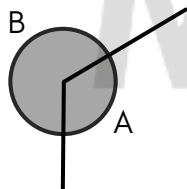
$$B : C = 5 : 1$$

$$5x + x = 6x$$

$$6x = 360$$

$$x = 60$$

$$B = 5x = 300^\circ, C = x = 60^\circ$$



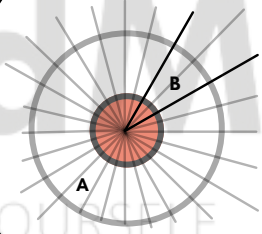
$$A : B = 5 : 1$$

$$5x + 1x = 6x$$

$$6x = 360$$

$$x = 60$$

$$A = 5x = 300^\circ, B = x = 60^\circ$$



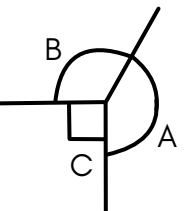
$$A : B = 3 : 1$$

$$3x + 1x = 4x$$

$$4x = 360$$

$$x = 90$$

$$A = 3x = 270^\circ, B = x = 90^\circ$$



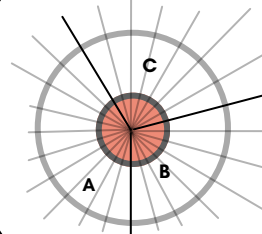
$$A : B = 5 : 4$$

$$5x + 4x = 9x$$

$$9x = 360$$

$$x = 40$$

$$A = 5x = 200^\circ, B = 4x = 160^\circ$$



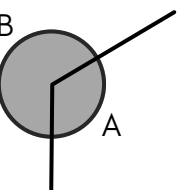
$$A : C = 11 : 1$$

$$11x + x = 12x$$

$$12x = 360$$

$$x = 30$$

$$A = 11x = 330^\circ, C = x = 30^\circ$$



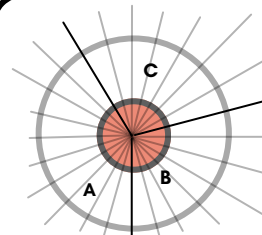
$$A : B = 7 : 5$$

$$7x + 5x = 12x$$

$$12x = 360$$

$$x = 30$$

$$A = 7x = 210^\circ, B = 5x = 150^\circ$$



$$A : B = 4 : 5$$

$$4x + 5x = 9x$$

$$9x = 360$$

$$x = 40$$

$$A = 4x = 160^\circ, B = 5x = 200^\circ$$