**Name:** **Grade:** **Score:**

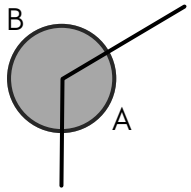
Worksheet #4

# ANGLE MEASURES IN RATIO

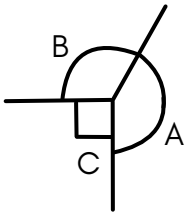
**Learning goal:** Students will apply their understanding of angle types and angle sums using ratios and algebraic reasoning to calculate unknown angle measures in various geometrical contexts

**Solve the following using ratios.**

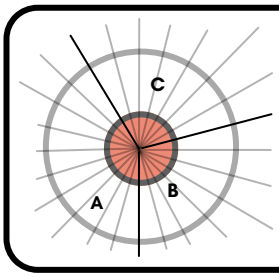
**If A : B = 5 : 1, find A-B**



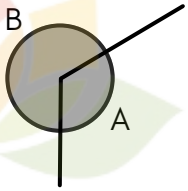

**If A : B = 5 : 4, find 2A-B**



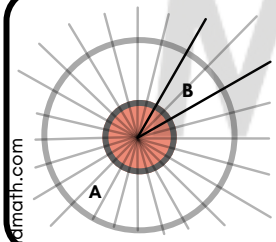

**If A : B = 4 : 5, find 2B-A**



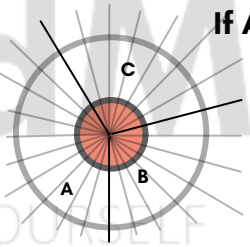

**If A : B = 7 : 5, find A -B**



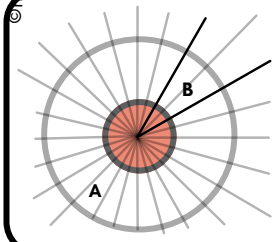

**If A: B = 3: 1, find A-B**



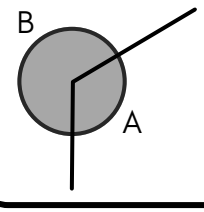

**If A : C = 11 : 1, find A-2C**



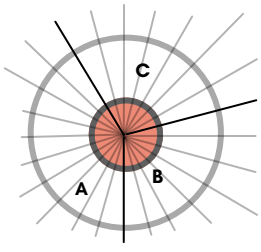

**If B: A = 1: 11, Find A-B**



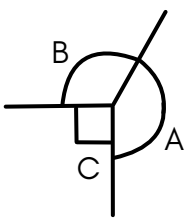

**If A : B = 1 : 2, find B - 2A**




**If B : C = 5 : 1, find B-2C**




**If B : A = 7 : 2, find 4B-A**

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**Name:** **Grade:** **Score:**

Worksheet #4(Answers)

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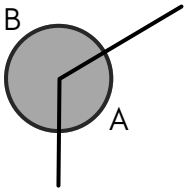
# ANGLE MEASURES IN RATIO

**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

**Solve the following using ratios.**




**If A : B = 5 : 1, find A-B**

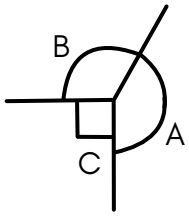
5x + 1x = 6x

6x= 360

x =60

A= 5x = 300°, B= x = 60°

A-B= 300° - 60° = 240




**If A : B = 5 : 4, find 2A-B**

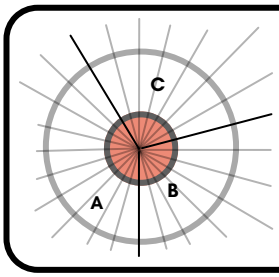
5x + 4x = 6x

9x= 360

x =40

A= 5x = 200°, B= 4x = 160°

2A= 400- 160 =240




**If A : B = 4 : 5, find 2B-A**

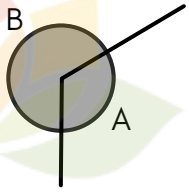
4x + 5x = 9x

9x= 360

x =40

A= 4x = 160°, B= 5x = 200°

2B-A = 400-160 =240




**If A : B = 7 : 5, find A -B**

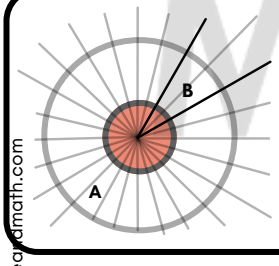
7x + 5x = 12x

12x= 360

x =30

A= 7x = 210°, B= 5x = 150°

A-B=210-150 =60




**If A: B = 3: 1, find A-B**

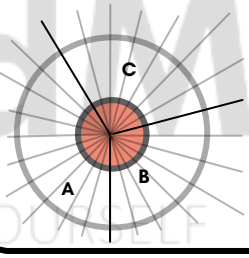
3x + 1x = 4x

4x= 360

x =90

A= 3x = 270°, B= x = 90°

A-B= 270-90 =180




**If A : C = 11 : 1, find A-2C**

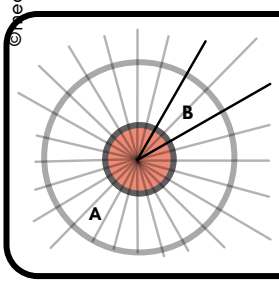
11x + x = 12x

12x= 360

x =30

A= 11x = 330°, C= x = 30°

A-2C=330- 60 = 270




**If B: A = 1: 11, Find A-B**

1x + 11x = 12x

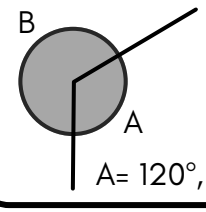
12x= 360

x =30

B= 1x = 30°, A= 11x = 330°

A-B = 330 -30 = 300

**If A : B = 1 : 2, find B - 2A**



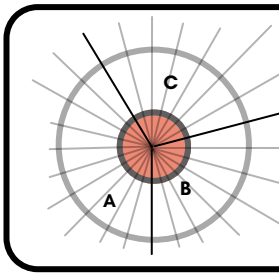

2 x + 1x = 3x

3x= 360

x =120

A= 1x = 120°, B= 2x = 240°

A= 120°, B= 240° , B-2A = 240-240 = 0




**If B : C = 5 : 1, find B-2C**

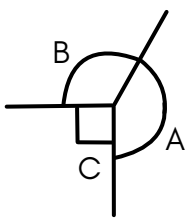
5x + x = 6x

6x= 360

x =60

B= 5x = 300°, C= x = 60°

B-2C=300- 120 = 180




**If B : A = 7 : 2, find 4B-A**

7x + 2x = 9x

9x= 360

x =40

B= 2x = 80°, A= 7x = 280°

4B-A= 320- 280 = 40

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