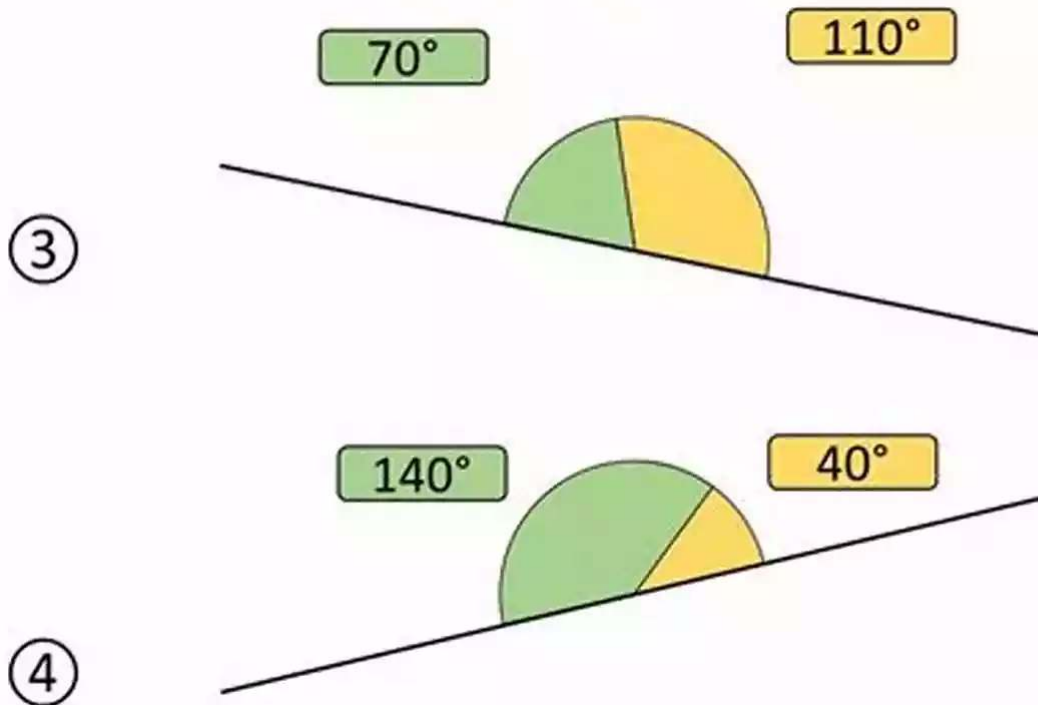


# All In One Worksheet Angles Part III: Angles on Straight Line/about Point

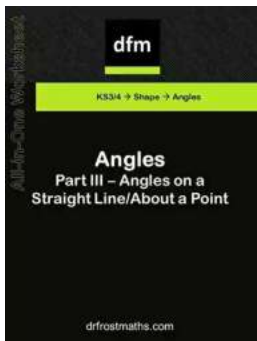
**ANGLE RULE:** Angles on a straight line total  $180^\circ$



A thorough understanding of angles is essential in various fields such as mathematics, engineering, and architecture. In this worksheet, we will delve into angles on a straight line and around a point, exploring their properties, measurements, and how they can be applied in real-life scenarios.

## Angles on a Straight Line

**Definition:** When two lines meet, they form two pairs of opposite angles. When the lines are straight, the sum of the opposite angles is always equal to 180 degrees. These angles are known as angles on a straight line.



## All in One Worksheet - Angles - Part III - Angles on a Straight Line/About a Point

by Wilhelm Forst(Kindle Edition)

★★★★☆ 4 out of 5

Language : English

File size : 366 KB

Screen Reader : Supported

Print length : 571 pages

X-Ray for textbooks : Enabled



Angles on a straight line have numerous applications, especially when it comes to determining the relationships between various angles. They are widely used in geometry, trigonometry, and even in everyday activities such as navigation or measuring distances.

**Measurement:** To find the value of an unknown angle on a straight line, we can make use of algebraic equations. By subtracting the known angle(s) from 180 degrees, we can determine the missing angle(s) and thus, solve mathematical problems involving angles on a straight line.

**Example:** Let's consider a straight line with an angle of 85 degrees. To find the measure of the unknown angle, we subtract 85 from 180:

$$180 - 85 = 95 \text{ degrees}$$

Therefore, the unknown angle on the straight line measures 95 degrees.

### Angles around a Point

**Definition:** When multiple lines originate from a single point, they form several angles. The sum of all these angles around a point is always equal to 360 degrees. These angles are known as angles around a point.

Angles around a point have various applications, especially when it comes to analyzing shapes and calculating the sum of different angles within them. By understanding angles around a point, we can determine the relationship between different angles and use this knowledge to solve complex geometric problems.

**Measurement:** To find the value of an unknown angle around a point, we can utilize the concept of the full rotation of 360 degrees. By subtracting the known angle(s) from 360 degrees, we can determine the magnitude of the missing angle(s).

**Example:** Let's consider a point with three lines originating from it. The angles formed by these lines are 60 degrees, 100 degrees, and an unknown angle. To find the value of the unknown angle, we subtract the sum of the known angles from 360:

$$360 - (60 + 100) = 200 \text{ degrees}$$

Therefore, the unknown angle around the point measures 200 degrees.

## **Real-Life Applications**

The understanding of angles on a straight line and around a point extends beyond the realms of mathematics. These concepts find numerous applications in various fields:

### **Architecture:**

Architects use angles on a straight line and around a point to design aesthetically pleasing and structurally sound buildings. By understanding these angles, architects can ensure proper alignment and balance in their designs.

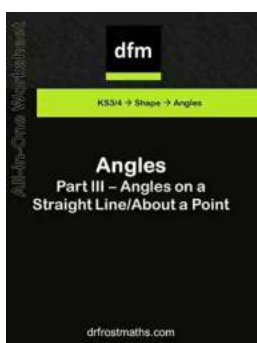
## **Navigational Systems:**

Angles on a straight line are used in navigational systems such as GPS to determine the direction and orientation of objects or vehicles. These angles help in providing accurate and efficient navigation.

## **Engineering:**

In engineering, angles on a straight line and around a point are crucial in calculating forces, tension, and load-bearing capacities of structures. By using these angles, engineers can design safe and durable structures.

Understanding angles on a straight line and around a point is essential for various academic and professional disciplines. By grasping the concepts and measurements associated with these angles, individuals can solve mathematical problems, design structures, and navigate accurately. These angles play a crucial role in real-life applications and provide a solid foundation for further studies in mathematics and related fields.



## **All in One Worksheet - Angles - Part III - Angles on a Straight Line/About a Point**

by Wilhelm Forst(Kindle Edition)

★★★★☆ 4 out of 5

Language : English

File size : 366 KB

Screen Reader : Supported

Print length : 571 pages

X-Ray for textbooks : Enabled

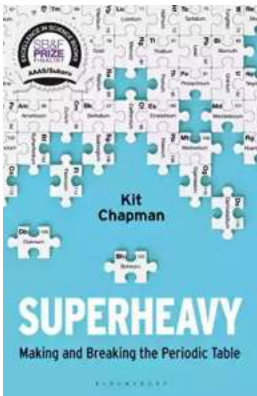


All in One' worksheets provide a standalone exercise, solutions and a worked example, all on a single printable page. It also links to specific Key Skill(s) on the DrFrostMaths for additional online practice of questions.



## Discover the Success Story of Robert Smallwood - The Online Business Guru

Have you ever wondered how some individuals achieve massive success in the world of online business? One such person is Robert Smallwood, an entrepreneur who has...



## Superheavy Making And Breaking The Periodic Table

Throughout history, mankind has always been fascinated by the pursuit of knowledge and discovery. One area that has captivated the minds of scientists and researchers for...



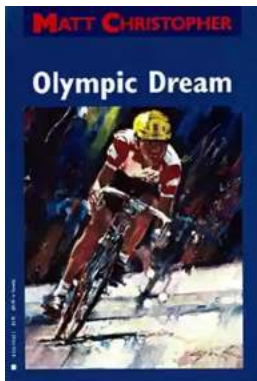
## Adaptable Tactics For The Modern Game

The modern game of football is characterized by its dynamic and fast-paced nature. In order to succeed in this highly competitive environment, it is essential for...



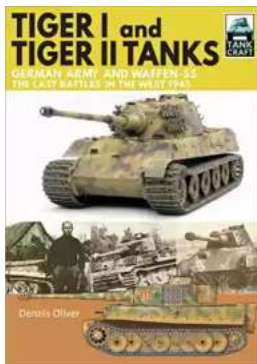
## Discover the Joy of Learning Quilting Skills and Techniques Through Engaging Projects

Are you ready to embark on a creative journey that combines art, passion, and functionality? Quilting, an age-old craft that has been passed down through...



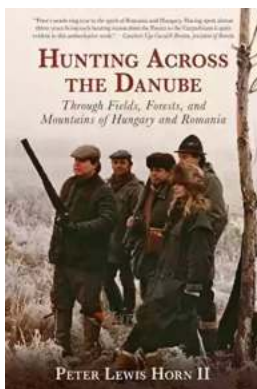
## The Olympic Dream: Matt Christopher's Incredible Journey

Are you ready for an inspiring story that will leave you on the edge of your seat? Brace yourself as we take you on an extraordinary journey through the life of...



## German Army And Waffen SS: The Last Battles In The West 1945 Tankcraft 13

As history buffs and military enthusiasts, it is impossible not to be fascinated by the German Army and Waffen SS during the final battles in the...



## Through Fields, Forests, And Mountains: Exploring the Magnificent Landscapes of Hungary and Romania

Picture yourself embarking on an awe-inspiring journey, surrounded by lush green meadows, dense forests, and majestic mountains. Hungary and Romania, two countries located in...



## The Colonization Of Mars: A Most Mysterious Journey

Ever since the dawn of human civilization, the idea of exploring and colonizing other planets has captivated our imagination. While our collective fascination rests heavily...