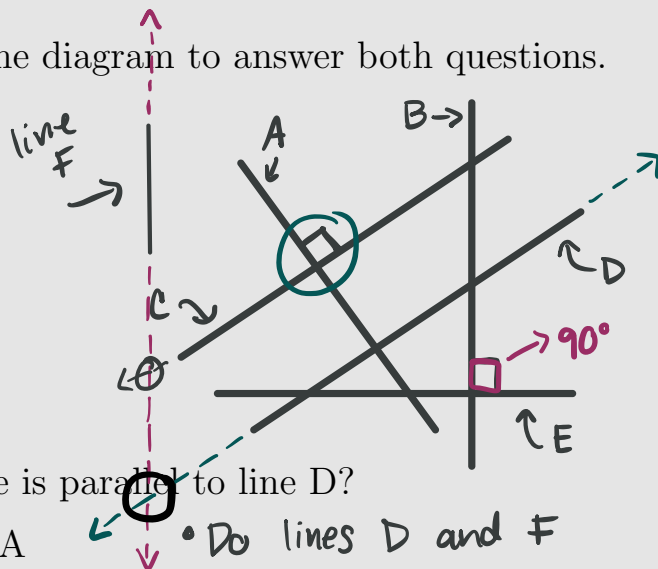


Topics to review:

- Parallel and perpendicular lines

Problem

Refer to the diagram to answer both questions.



• line A is a transversal

Which line is parallel to line D?

- (A) Line A
- (B) Line B
- (C) Line C
- (D) Line E
- (E) Line F ?

• Do lines D and F intersect? YES!

• They are not parallel (F and D)

• F and B are!

Which line is perpendicular to line D? B?



- (A) Line A
- (B) Line B
- (C) Line C
- (D) Line E

• They do touch! (Intersect at some point)

• "lines B and D are not perpendicular because they do not create a 90° angle at their intersection"

• Line B and E!

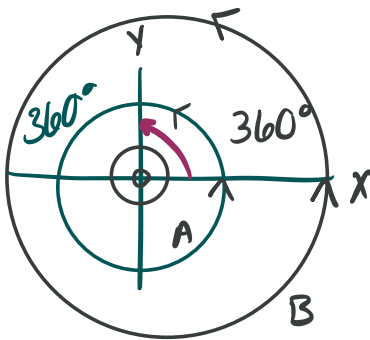
Parallel lines



- Need 2 lines to decide if they are parallel (pair)
 - Comparison
- They never intersect
 - Do not touch, cross paths, overlap, etc.
-  Train tracks
 -  • side by side

• lines are abstract objects

• We can extend any line in either direction infinitely

* "Extend infinitely w/out ever touching" ? *

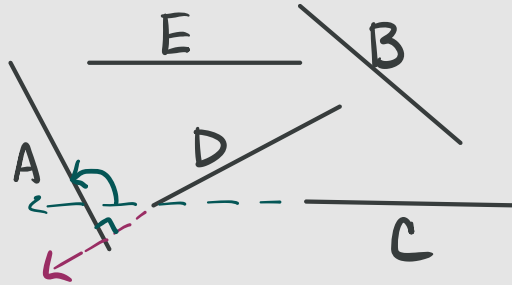


- Full circle $\rightarrow 360^\circ$ 
 - Half circle $\rightarrow 180^\circ$ 
 - $\frac{1}{4}$ of a circle $\rightarrow \frac{360^\circ}{4} = 90^\circ$
- $$\frac{1}{4} \cdot 360 = \frac{1 \cdot 360}{4} = \frac{360}{4} \rightarrow \frac{1}{4} \cdot 360$$
- $$0.25 \cdot 360$$
- $$\frac{1}{4} \cdot \frac{360}{1} = \frac{360}{4}$$

• Multiplying fractions & whole numbers

Problem 2

Refer to the diagram to answer both questions. Note that the end points of a line can be extended infinitely in opposite directions.



Which line is perpendicular to line A? **D**

- (A) Line B
- ~~(B) Line C~~
- (C) Line D**
- (D) Line E

• intersect, 90°

Which line is parallel to line C?

- (A) Line A
- (B) Line B
- (C) Line D
- (D) Line E**

Topics to review:

- Angles, parallel lines, and transversals
- Missing angles with a transversal

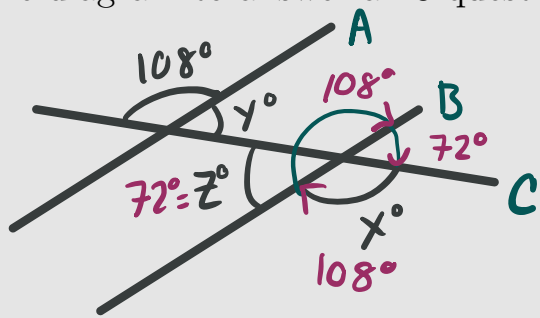
- Acute $< 90^\circ$
- Obtuse $> 90^\circ$

Problem

Refer to the diagram to answer all 3 questions.

lines A and B are parallel

$180^\circ = 108^\circ + y^\circ$
 $180^\circ - 108^\circ = y^\circ$
 $72^\circ = y^\circ$



What is the measure of angle x? 108°

- ~~(A) 180°~~
- ~~(B) 90°~~
- (C) 108°**
- ~~(D) 72°~~

• x is an obtuse angle
 $x^\circ > 90^\circ$



What is the measure of angle y?

- (A) 180°
- (B) 90°
- (C) 108°
- (D) 72°**

$y^\circ = 180^\circ - 108^\circ = 72^\circ$

What is the measure of angle z?

- (A) 180°
- (B) 90°
- (C) 108°
- (D) 72°**

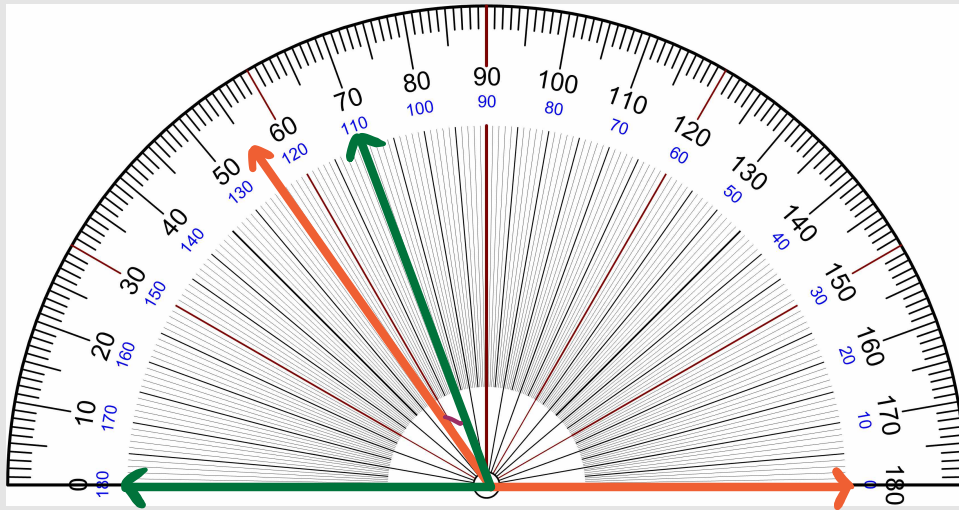
$z^\circ = y^\circ = 72^\circ$

Topics to review:

- Using a protractor to measure angles

Problem

Refer to the image when answering the questions.



What is the measure of the **orange angle**?

- ~~(A) 55°~~
- (B) 145°
- ~~(C) 65°~~
- (D) 125°

What is the measure of the **green angle**?

110; 70°

- (A) 180°
- (B) 70°**
- (C) 95°
- (D) 110°

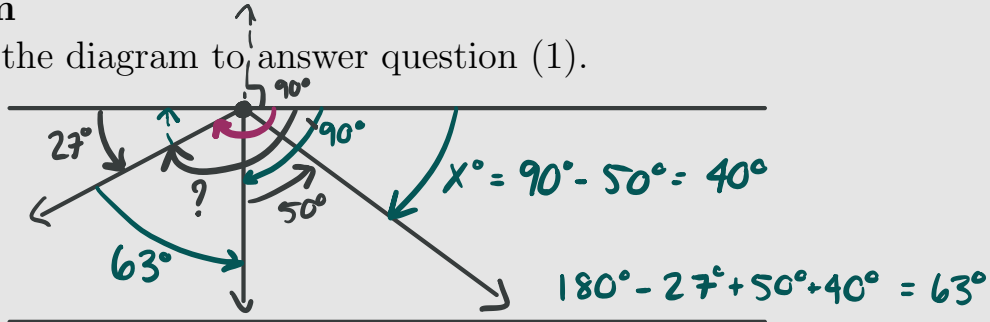


Topics to review:

- Solving for unknown angles

Problem

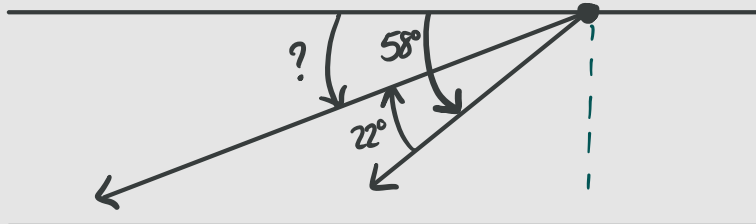
Refer to the diagram to answer question (1).



What is the measure of the unknown angle?

- (A) 177° $63 + 50 + 40 = 153^\circ$
- (B) 66°
- (C) 95°
- (D) 153° $180^\circ - 27^\circ = 153^\circ$

Refer to the diagram to answer question (2).



What is the measure of the unknown angle?

- ~~(A) 100°~~ "less than 90° "
- (B) 22° "less than 58° "
- (C) 45° $58 - 22 = 36^\circ$
- (D) 36°