Physics 12 Daily Review Section 21-2

1.

The circular loop of wire shown below has an area of $0.40~\text{m}^2$ and is in a 0.60~T magnetic field. This field is increased to 1.40~T in 0.25~s.



Determine the emf produced in the loop and the direction of current.

	EMF(V)	DIRECTION OF CURRENT			
Α.	1.3 V	clockwise			
В.	1.3 V	counter-clockwise			
C.	3.2 V	clockwise			
D.	3.2 V '	counter-clockwise			

2.

A rectangular loop of wire is placed in a magnetic field as shown in the diagram.

	×	×	×	×	X	×	$\vec{B} = 0.40 \text{ T}$
—	×Г	×	×	×	×	×	
	×	×	×	×	×	×.	
0.20 m	×	*×	×	×	×	×	
	×	×	×	×	×	_J×	+
	×	×	×	×	×	×	
	«		- Ó.3:	5 m -		>	

'If the loop is removed from the field in a time of 0.050 s, what is the induced emf?

- A. 0.028 V
- B. 0.28 V '
- C. 0.56 V
- D. 5.7 V

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 $\vec{B}_f = 1.40 \text{ T}$ wrent. $\vec{A} = \begin{pmatrix} BA & BA \\ BA & BA \end{pmatrix}$

Determine the emf produced in the loop and the direction of current.

	ÉMF (V)	DIRECTION OF CURRENT		A La	
Α.	(3 <u>V</u>)	clockwise	Carrier and	-0.40(.6-1.4)	
B.	1.3 V	counter-clockwise			
C.	3.2 V	cłockwise	Carina con Frances		
D. ' 3.2 V		counter-clockwise			

A rectangular loop of wire is placed in a magnetic field as shown in the diagram.

	×	×	×	×	×	×	$\vec{B} = 0.40 \text{ T}$
7	. ×	×	, ×	X	×	×	SINAP
	×	×	×	×	×	×	EN/BAC-BAC)
0.20 m	×	×	×	×	×	, ×	the state of the s
	×	×	×	• ×	×	×	At
	×	×	×	×	×	×	- 1 × 620 × 351 (0 - 0, 11)
ì	-	·	- 0.3	5 m -			0.05 V

If the loop is removed from the field in a time of 0.050 s, what is the induced emf?

- A. 0.028 V
- B. 0.28 V

2.

- (C) 0.56 V
- D. 5.7 V