C/D

Use the diagram of a spinner to answer the question.

Jake is at a work party. At the party, each employee gets to spin the dial twice in a row. Prizes are given, depending on what number the dial lands on.

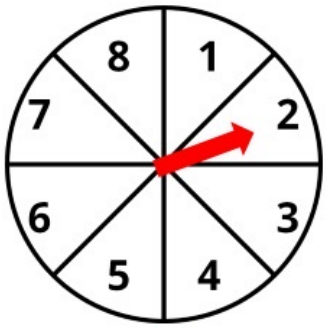
(A) If the dial lands on an odd number, the employee wins a $20 gift card. → {1,3,5,7} (4)

(B) If the dial lands on 2, 4, or 6, the employee wins a free dinner for two. → {2,4,6} (3)

(C) If the dial lands on 8, the employee wins a $50-bill. → {8} (1)

What is the probability that Jake will win a $50-bill and a $20 gift card?

↳ "likliHood" or "chance"



Spinner

- ○ $\frac{1}{10}$
- ○ $\frac{1}{16}$
- ○ $\frac{1}{8}$
- ○ $\frac{1}{14}$

*fractions
"parts of a whole"

*greatest common factor

(A) $\frac{4}{8} \Rightarrow \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$

(B) $\frac{3}{8}$

(C) $\frac{1}{8}$ "1 out of 8"

Turn #1 $\frac{1}{8}$ #2 $\frac{1}{2}$

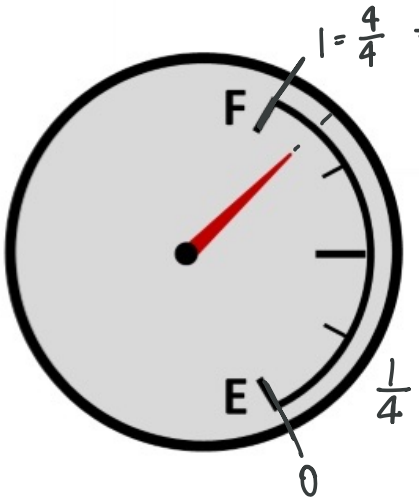
*Independent events & dependent

• Multiply: $\frac{1}{8} \times \frac{1}{2} = \frac{1 \times 1}{8 \times 2} = \frac{1}{16}$

A/B

About how much gas is in the gas tank?

- ○ three-fourths of a tank $\frac{3}{4}$
- ○ two-thirds of a tank $\frac{2}{3} = 0.66$
- ◉ five-sixths of a tank $\frac{5}{6} = 0.833$
- ○ two-fifths of a tank $\frac{2}{5}$



$1 = \frac{4}{4} \Rightarrow 100\%$

$\frac{3}{4} \Rightarrow 75\% = 0.75$

$\frac{1}{2} = \frac{2}{4}$

$\frac{1}{4}$

- Amount of gas is greater than $\frac{3}{4}$ (75%) but less than a full tank $\frac{4}{4}$ (100%)

Percent Problems

① What is 20% of $32.70 ? → multiplication, =

$X = 0.20 \times 32.70$

$20\% \Rightarrow \frac{20}{100} = \frac{20.0}{100} = 0.20$

partial = Percent × whole part

$0.20 \times 32.70 = 6.54 \Rightarrow \$6.54 = X$

"$6.54 is 20% of $32.70"

② 11.5 is 80% of what number? 14.37

$\$11.5 \times 0.8 = \$9.2$

"$11.5 is 80% of $9.20"

partial = Percent × whole part

$\frac{11.5}{80\%} = \frac{80\% \times \text{"what number"}}{80\%}$

$\frac{11.5}{0.80} = \text{"what number"}$

14.37 = "what number"

*We want "what number" = ____

$\frac{80\%}{80\%} = 1$

*Inverse operation

* $\frac{X}{X} = 1$

* $X \cdot 1 = X$

③ **A car insurance company paid $1,758.90 to repair a car that had been rear ended. This was 75% towards the total cost of the repair. What was the total cost?**

$2,785.20	$3,126.93	$5,276.70	$2,345.20 ✓

* Partial = Percent • Whole Part

$\$1,758.90 = 75\% \cdot \text{Total Cost}$

$\frac{\$1,758.90}{0.75} = \frac{0.75}{0.75} \cdot \text{Total Cost}$ ($\frac{0.75}{0.75} = 1$)

$\$2,345.20 = \text{Total Cost}$

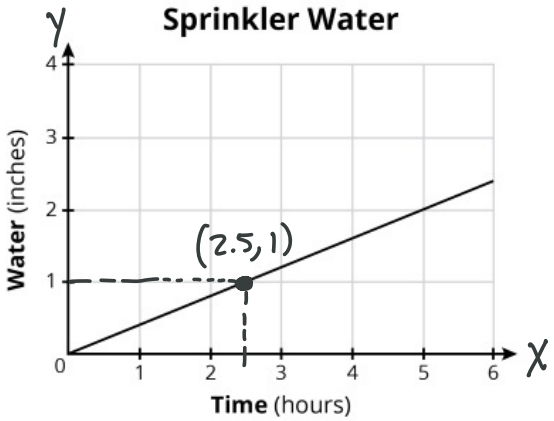
*Properties of mult. and division

A/B

George left the sprinkler on for 6 hours. The graph shows how much water was in a bucket near the sprinkler.

How long did it take for the bucket to have 1 inch of water?

- 2 hours, 30 minutes
- 2 hours, 50 minutes
- 1 hour, 30 minutes
- 3 hours, 10 minutes



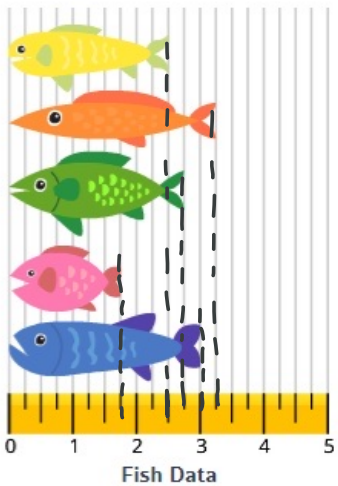
A/B

* Essential Ed is incorrect *

What is the average length of the fish?

- ○ 2.25 inches
- ○ 2.75 inches
- ○ 2.6 inches
- ○ 2.5 inches

- Measure each fish
- Add up the lengths
- Divide by the # of fish (5)



Fish Data

3, 1.75, 2.75, 3.25, 2.5 = 13.25

13.25 ÷ 5 = 2.65