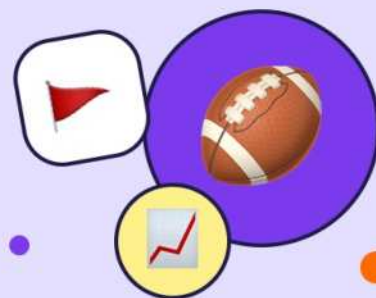


Math

Grade 7

Flag football math: yards, averages and percents

Girls' flag football is the fastest-growing high school sport. Crunch the stats like a coach.



I can find the mean of integers and calculate percents.

1



Completion percent

Completion % = passes completed ÷ passes thrown × 100. Fill in the last column.



Game	Passes thrown	Passes completed	Completion %
1	20	15	
2	25	20	
3	16	12	
4	40	26	

2 Yards per play

A loss of yards is a negative number. Find the total and the mean.

- Plays: 12, -3, 8, 0, 18 yards. Total: _____ yards. Mean: _____ yards per play.
- Plays: 5, -4, -2, 15, 6, 16 yards. Total: _____ yards. Mean: _____ yards per play.
- A loss of 6 yards and then a gain of 9 yards is a net gain of _____ yards.

3 Compare

Write $>$, $<$ or $=$ in each circle.

-5



-2

$|-8|$



6

15% of 40



6

$-3 + 10$



7

4 Coach's questions

Circle the right answer.

- A quarterback completes 18 of 24 passes. What is her completion percent?

A 70% B 75% C 80%
- The goal is 310 yards in 8 games. After 5 games the team has 190 yards. What mean is needed in each of the last 3 games?

A 38 yards B 40 yards C 42 yards
- Which integer shows a loss of 7 yards?

A 7 B -7 C 0.7

5 Integer and percent drill

Solve each problem.

1. $-8 + 15 =$ _____
2. $12 - (-5) =$ _____
3. $-6 \times 4 =$ _____
4. $-36 \div (-9) =$ _____
5. $-3 - 7 =$ _____
6. 25% of 60 = _____
7. 40% of 35 = _____

6 True or false

Circle True or False.

1. $-10 < -4$
2. A 20% increase on 50 yards is 60 yards.
3. The mean of 4, 8 and 12 is 12.
4. $-2 \times (-3) = -6$
5. $\frac{3}{4}$ is equal to 75%.
6. $|-12| = 12$

True

False

True

False

True

False

True

False

True

False

True

False

7 Find the part

Find each amount. Amount = percent $\times$ total.

Stat	Total	Percent	Amount
Passes caught	40	35%	
Rushing yards	250	12%	
Flags pulled	60	45%	

Tickets sold

320

75%

8 Game plan problems

Read each problem and circle the right answer.

1. A jersey costs \$24. It is on sale for 15% off. What is the sale price?

A \$20.40

B \$21.60

C \$9.00

2. The team gains 4 yards per play on average. How many plays does it take to gain 60 yards?

A 12

B 15

C 16

3. On three plays the team gains 9 yards, loses 12 yards, then gains 5 yards. What is the net change?

A -2 yards

B 2 yards

C 26 yards

4. A player runs 45 yards in 6 seconds. What is her unit rate?

A 6.5 yards per second

B 8 yards per second

C 7.5 yards per second

9 Season line graph

Make a line graph of the completion percents for games 1 to 4. Label both axes and give it a title. Then describe the trend in one sentence.

How did it go?



Made with 

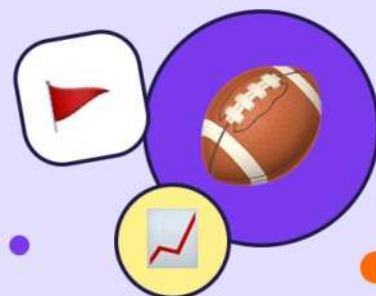
Math

Grade 7

Answer key

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Completion % = passes completed ÷ passes thrown × 100. Fill in the last column.



Game	Passes thrown	Passes completed	Completion %
1	20	15	75%
2	25	20	80%
3	16	12	75%
4	40	26	65%

2 Yards per play

A loss of yards is a negative number. Find the total and the mean.

- Plays: 12, -3, 8, 0, 18 yards. Total: 35 yards. Mean: 7 yards per play.
- Plays: 5, -4, -2, 15, 6, 16 yards. Total: 36 yards. Mean: 6 yards per play.
- A loss of 6 yards and then a gain of 9 yards is a net gain of 3 yards.

3 Compare

Write $>$, $<$ or $=$ in each circle.

-5

$<$

-2

$|-8|$

$>$

6

15% of 40

$=$

6

$-3 + 10$

$=$

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- Which integer shows a loss of 7 yards?
☐ A 7 ☒ B -7 ☐ C 0.7

5 Integer and percent drill

Solve each problem.

1. $-8 + 15 =$ 7

2. $12 - (-5) =$ 17

3. $-6 \times 4 =$ -24

4. $-36 \div (-9) =$ 4

5. $-3 - 7 =$ -10

6. 25% of 60 = 15

7. 40% of 35 = 14

6 True or false

Circle True or False.

1. $-10 < -4$

True

False

2. A 20% increase on 50 yards is 60 yards.

True

False

3. The mean of 4, 8 and 12 is 12.

True

False

4. $-2 \times (-3) = -6$

True

False

5. $\frac{3}{4}$ is equal to 75%.

True

False

6. $|-12| = 12$

True

False

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Find each amount. Amount = percent $\times$ total.

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