



Probability Random Variables - Missing Prize and Fair Ticket Price to Prize Value

1 What prize value would make this a fair game?

The game is fair at a ticket price of \$23.5. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| \$10 | 0.40 |
| \$15 | 0.30 |
| ? | 0.30 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$55 | \$60 | \$45 | \$50 |

2 What prize value would make this a fair game?

The game is fair at a ticket price of \$14. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| \$5 | 0.40 |
| ? | 0.60 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$25 | \$20 | \$30 | \$15 |

3 What prize value would make this a fair game?

The game is fair at a ticket price of \$5.5. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| \$0 | 0.50 |
| \$5 | 0.30 |
| ? | 0.20 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$20 | \$25 | \$30 | \$15 |

4 What prize value would make this a fair game?

The game is fair at a ticket price of \$29.5. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| \$15 | 0.40 |
| \$35 | 0.10 |
| ? | 0.50 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$40 | \$35 | \$50 | \$45 |

5 What prize value would make this a fair game?

The game is fair at a ticket price of \$22.5. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| \$20 | 0.50 |
| ? | 0.50 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$20 | \$35 | \$30 | \$25 |

6 What prize value would make this a fair game?

The game is fair at a ticket price of \$30.5. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| ? | 0.30 |
| \$35 | 0.70 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$20 | \$25 | \$30 | \$15 |

7 What prize value would make this a fair game?

The game is fair at a ticket price of \$21.5. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| ? | 0.70 |
| \$25 | 0.30 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$30 | \$15 | \$20 | \$25 |

8 What prize value would make this a fair game?

The game is fair at a ticket price of \$37. Find the missing prize.

| Prize | $P(X)$ |
|-------|--------|
| ? | 0.20 |
| \$40 | 0.80 |

| | | | |
|------|------|------|------|
| A | B | C | D |
| \$25 | \$30 | \$35 | \$20 |