Advertising Metrics

Your company EcoBottle launched a 30-day digital ad campaign to promote its new eco-friendly water bottle. The campaign ran on Facebook, Instagram, and YouTube.  
  
Here is the summary data for the campaign:

|  |  |
| --- | --- |
| Metric | Value |
| Total Ad Spend | $5,000 |
| Impressions | 500,000 |
| Reach | 200,000 |
| Clicks | 15,000 |
| Conversions (Purchases) | 750 |
| Video Views (15s+) | 10,000 |
| Leads Generated | 300 |
| Total Revenue from Campaign | $18,000 |
| Total Engagements (likes, shares, comments) | 3,000 |
| Bounce Rate | 40% |
| Average Time on Page | 1 minute 45 seconds |

# Calculate the Following

1. Frequency  
➤ Formula: Frequency = Impressions ÷ Reach

2. CPM (Cost per 1,000 Impressions)  
➤ Formula: CPM = (Total Ad Spend ÷ Impressions) × 1,000

3. CPC (Cost Per Click)  
➤ Formula: CPC = Total Ad Spend ÷ Clicks

4. CTR (Click-Through Rate)  
➤ Formula: CTR = (Clicks ÷ Impressions) × 100

5. CVR (Conversion Rate)  
➤ Formula: CVR = (Conversions ÷ Clicks) × 100

6. CPA (Cost Per Acquisition)  
➤ Formula: CPA = Total Ad Spend ÷ Conversions

7. ROAS (Return on Ad Spend)  
➤ Formula: ROAS = Revenue from Ads ÷ Ad Spend

8. Engagement Rate  
➤ Formula: Engagement Rate = (Total Engagements ÷ Reach) × 100

9. CPV (Cost Per View)  
➤ Formula: CPV = Total Ad Spend ÷ Video Views

10. CPL (Cost Per Lead)  
➤ Formula: CPL = Total Ad Spend ÷ Leads Generated

# ✅ Answer Key

1. Frequency = 500,000 ÷ 200,000 = 2.5 times

2. CPM = ($5,000 ÷ 500,000) × 1,000 = $10

3. CPC = $5,000 ÷ 15,000 = $0.33

4. CTR = (15,000 ÷ 500,000) × 100 = 3%

5. CVR = (750 ÷ 15,000) × 100 = 5%

6. CPA = $5,000 ÷ 750 = $6.67

7. ROAS = $18,000 ÷ $5,000 = 3.6 (or 360%)

8. Engagement Rate = (3,000 ÷ 200,000) × 100 = 1.5%

9. CPV = $5,000 ÷ 10,000 = $0.50

10. CPL = $5,000 ÷ 300 = $16.67