

SAT Percentages Worksheet

Name: _____ Date: _____

Circle one answer for each question. Use the blank space for calculations. A calculator is allowed.

- 1. A jacket originally costs \$80 and is discounted by 25%. What is the sale price?**
 - A. \$65
 - B. \$20
 - C. \$100
 - D. \$60

- 2. After a 20% increase, a town's annual fee is \$72. What was the fee before the increase?**
 - A. \$57.60
 - B. \$60
 - C. \$52
 - D. \$86.40

- 3. A value increases by 10% and then decreases by 10%. The final value is what percent of the original?**
 - A. 99%
 - B. 90%
 - C. 100%
 - D. 101%

4. Positive quantity A is 150% of positive quantity B. Quantity B is what percent of quantity A?
- A. 150%
 - B. 75%
 - C. $66\frac{2}{3}\%$
 - D. 50%
5. A store's revenue rises from \$240,000 to \$300,000. What is the percent increase?
- A. 20%
 - B. 25%
 - C. 60%
 - D. 125%
6. A solution has a total mass of 200 grams, of which 15% is salt. If 100 grams of water is added and no salt is lost, what percent of the new solution's mass is salt?
- A. 15%
 - B. 5%
 - C. 7.5%
 - D. 10%

7. A price is reduced by 30% to \$84. What was the original price?
- A. \$109.20
 - B. \$114
 - C. \$120
 - D. \$126
8. A school has 800 students, of whom 35% ride the bus. How many students do not ride the bus?
- A. 280
 - B. 365
 - C. 520
 - D. 765
9. A population increases from 500 to 650. What is the percent increase?
- A. 23%
 - B. 26%
 - C. 30%
 - D. 130%

- 10. The price of an item rises by 25%. By what percent must the new price decrease to return to the original price?**
- A. 20%
 - B. 25%
 - C. 30%
 - D. 75%
- 11. A survey reports that support rose from 40% to 50%. What is the relative percent increase in support?**
- A. 10%
 - B. 20%
 - C. 25%
 - D. 50%
- 12. A worker earns \$18 per hour and receives a 5% raise. What is the new hourly wage?**
- A. \$18.05
 - B. \$18.50
 - C. \$18.90
 - D. \$19.80

Answer key

1 D · 2 B · 3 A · 4 C · 5 B · 6 D · 7 C · 8 C · 9 C · 10 A · 11 C · 12 C

1. D: \$60

The remaining price is 75% of \$80: $0.75(80) = \$60$. The \$20 discount is not the sale price.

2. B: \$60

Let the original fee be p . Then $1.20p = 72$, so $p = 60$. Subtracting 20% of the new fee uses the wrong base.

3. A: 99%

Multiply the change factors: $1.10(0.90) = 0.99$. The result is 99% of the original, a net 1% decrease.

4. C: $66\frac{2}{3}\%$

$A = 1.5B$, so $\frac{B}{A} = \frac{1}{1.5} = \frac{2}{3}$. Multiplying by 100% gives $66\frac{2}{3}\%$.

5. B: 25%

The increase is \$60,000. Divide by the original \$240,000: $\frac{60000}{240000} = 0.25$, or 25%.

6. D: 10%

The salt mass stays $0.15(200) = 30$ grams. Total mass becomes 300 grams, so the salt fraction is $\frac{30}{300} = 10\%$.

7. C: \$120

After a 30% reduction, 70% of the original price remains. Thus $0.70p = 84$, so $p = 120$.

8. C: 520

The percentage not riding the bus is $100\% - 35\% = 65\%$. Multiplying 0.65 by 800 gives 520 students.

9. C: 30%

The increase is 150, measured against the original 500. Therefore $\frac{150}{500} = 0.30$, or 30%.

10. A: 20%

If the original price is 100, the new price is 125. A decrease of 25 from 125 is $\frac{25}{125} = 20\%$.

11. C: 25%

The increase is 10 percentage points. Relative to the original 40%, this is $\frac{10}{40} = 25\%$; percentage points and percent change differ.

12. C: \$18.90

Multiply the original wage by 1.05: $18(1.05) = 18.90$. The increase is \$0.90 per hour.