

Name: _____

1. A survey was given to 12th-grade students of West High School to determine the location for the senior class trip. The results are shown in the table below.

	Niagara Falls	Darien Lake	New York City
Boys	56	74	103
Girls	71	92	88

To the *nearest percent*, what percent of the boys chose Niagara Falls?

1. 12 2. 24
3. 44 4. 56

2. The value, $V(t)$, of a baseball card increases according to the function $V(t) = P(1.045)^t$, where P is the purchase price of the baseball card and t is the time, in years since the card was purchased. By what percent does the value of the card increase each year?

1. 4.5% 2. 45%
3. 95.5% 4. 145%

3. Burt purchased a theater ticket on a website. The original price of the ticket was \$65.00. He used a coupon code to receive a 20% discount. The website applied a 10% service fee. The cost of the ticket Burt bought was less than the original price by what percent?

1. 10% 2. 12%
3. 15% 4. 88%

4. Which of the following situations could be modeled using the expression $1.05(0.90p)$?

1. The total cost of a shirt that is on sale for 10% off including 5% tax
2. The price of a shirt marked up 5%
3. The price of a pair of sneakers marked down 5%
4. The total cost of a concert ticket discounted 90% plus a 5% fee

5.



Jeans are on sale for \$59.00 at a popular store in the mall. This is 80% of the regular price. What is the regular price of the jeans?

1. \$73.75 2. \$139.00
3. \$47.20 4. \$80.00

6. The expression $(1 + i)^2$ is equivalent to

1. 1 2. 2
3. i 4. $2i$

7. Simplify and express in $a + bi$ form: $(12 + 3i) - (3 - i)$

1. $9 + 2i$
2. $9 + 4i$
3. $15 + 2i$
4. $15 - 2i$

8. For which equation will $f(-2) = -6$?

1. $f(x) = x^3 + x$
2. $f(x) = x^4 - 5x$
3. $f(x) = 4x^3 + 6x^2 - x$
4. $f(x) = -3x^3 - 4x^2 + 4x$

Answer Key for CM E21 practice 2

Question 1: 2

Question 4: 1

Question 7: 2

Question 2: 1

Question 5: 1

Question 8: 3

Question 3: 2

Question 6: 4