Pencils Out, and No Peeking at the Answers

1. What is the greatest common factor of $48x^2$ and $72x^3$?

A $12x^2$ **B** $12x^3$ **C** $24x^2$ **D** $24x^3$

2. A pair of sandals is on sale for 20% off the original price. If the original price is \$16.00, what is the sale price?

A \$3.20 **B** \$12.00 **C** \$12.80 **D** \$19.20

3. Multiply the expression below.

$$-3x(x - 4)$$

A $-3x^2 - 4$ **B** $-3x^2 - 7$ **C** $-3x^2 - 12x$ **D** $-3x^2 + 12x$

4. Simplify the expression below.

$$\frac{24x^2y}{6xy^3}$$

A $18x^3y^4$ **B** $4xy^2$ **C** $\frac{4x}{y^2}$ **D** $\frac{18x^2}{y^2}$

5. Omar wants to solve the equation $3x - 2 = 10$. Which steps could Omar follow to find the solution?

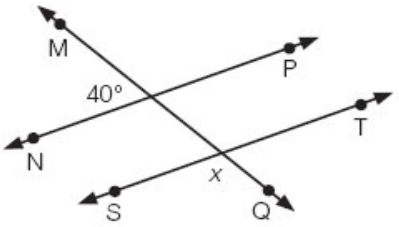
A Add 2 to both sides. Then divide both sides by 3.

B Divide both sides by 3. Then add 2 to both sides.

C Subtract 2 from both sides. Then divide both sides by 3.

D Multiply both sides by 3. Then subtract 2 from both sides.

6. In the diagram below, $\overleftrightarrow{NP}$ and $\overleftrightarrow{ST}$ are parallel, and $\overleftrightarrow{MQ}$ intersects both lines.



[not drawn to scale]

What is the measure of $\angle x$?

A 40° **B** 90° **C** 140° **D** 180°

7. The sum of a number and its square is less than or equal to negative three. Which inequality represents this relationship?

A $n(n^2) < -3$ **B** $n(n^2) \leq -3$

C $n + n^2 < -3$ **D** $n + n^2 \leq -3$

8. Katie converts the outside temperature from degrees Fahrenheit, F , to degrees Celsius, C. She uses the formula below to convert the temperature.

$$(F - 32)\frac{5}{9} = C$$

If the outside temperature is 50 degrees Fahrenheit, what is the outside temperature in degrees Celsius?

A 2 **B** 5 **C** 9 **D** 10

Answers: 1(C), 2(C), 3(D), 4(C), 5(A), 6(C), 7(D), 8(D).

Source: New York State Education Department