

1. Elijah has a square plot of side  $m$  and another triangular plot with base and height each equal to  $m$ . What is the total area of both plots?

A.  $\frac{3m^2}{2}$   $23m^2$

B.  $\frac{2m^3}{3}$   $32m^3$

C.  $\frac{3m^2}{5}$   $53m^2$

D.  $\frac{3m}{1}$   $13m$

E.  $\frac{5m}{3}$   $35m$

Answers

2. A travel agency charges \$ 8 per km and levies a fixed charge of \$ 50 for bus service. Write an algebraic expression for the above situation, if the bus is hired for  $x$  km.

A.  $3x + 40$

B.  $5x + 27$

C.  $2x + 39$

D.  $3x + 31$

E.  $8x + 50$

Answers

3. A teacher gets paid \$70 per hour. Last week he worked for 9 hours and this week he will work for  $x$  hours. Write an algebraic expression for the money paid to him for both the weeks.

A.  $70(x + 9)$

B.  $x(70 + 9)$

C.  $9(x + 70)$

D.  $x(70 \times 9)$

E.  $9(x \times 7)$

Answers

4. Liam collects 12 leaves and William collects  $x$  leaves for science project. After some time Liam loses 3 leaves and William collects  $2x$  leaves. Which one of the following algebraic expression of the total number of leaves collected by both of them.

A.  $12 + 2x$

B.  $12 - 9 + 3x$

C.  $7 + 3x$

D.  $3 + 3x$

E.  $9 + 3x$

Answers

5. Simplify combining like terms  $z^2 + 13z^2 - 5z + 7z^3 - 15z$

A.  $7z^3 + 12z^2 - 20z$

B.  $5z^2 + 3z^2 - 11z$

C.  $5z^2 + 6z^3 - 10z$

D.  $9z^3 + 8z^2 - 6z$

E.  $3z^2 + 7z^2 - 13z$

Answers

6. Simplify combining like terms  $5x^2y - 5x^2 + 3yx^2 - 3y^2 + x^2 - y^2 + 8xy^2 - 3y^2$

A.  $8x^2y + 8xy^2 - 4x^2 - 7y^2$

B.  $4x^2y + 4xy^2 - 2x^2 - 3y^2$

C.  $2x^2y + 2xy^2$

D.  $3x^2 - 5y^2$

E.  $5xy^2 - 3x^2 - 2y^2$

Answers

7. Add  $ab - 4a, 4b - ab, 4a - 4b$

A. 1

B. 2

C. 3

D. 4

E. 0

Answers

8. What should be added to  $x^2 + xy + y^2$  to obtain  $2x^2 + 3xy$ ?

A.  $2x + 2xy - y$

B.  $x^2 + 2xy - y^2$

C.  $x^3 + y^3$

D.  $x + 3xy - y$

E.  $2x + 2xy - 2y$

Answers

9. What should be subtracted from  $2a + 8b + 10$  to get  $-3a + 7b + 16$ ?

A.  $3a + 2b - 3$

B.  $6a + 2b - 1$

C.  $6a - 3a + 6$

D.  $5a + b - 6$

E.  $a + 5b - 1$

Answers

10. What should be taken away from  $3x^2 - 4y^2 + 5xy + 20$  to obtain  $-x^2 - y^2 + 6xy + 20$ ?

A.  $4x^2 - 3y^2 - xy$

B.  $4x - 3y - xy$

C.  $2x^3 - 2y - xy$

D.  $5x - 3y - xy$

E.  $2x^2 - 4y^2$

Answers