

Answer The Following

1) Find the sum of following polynomials

A) $2p^2 + c^2 + 14pq + 2c$ and $-p^2 + 10c^2 + 5p^2c + 2pq + 12p + 12c + 18$

B) $5x^2y + 3xy^2 + 8x + 14y + 16$ and $12x^2 + 4y^2 + 12x^2y + 4xy + 9$

2) Find value of a from equation $(a - 3)^2 - (a + 3)^2 = -64$

Hint : Use identity $(a+b)(a-b) = a^2 - b^2$

3) If $a + b = 11$,

$b + c = 12$ and

$c + a = 13$,

then what is the value of $a + b + c$?

4) Deleesh bought a total of 17 pens and pencils. He got a discount of \$0.50 for each pen and a discount of \$1.10 for each pencil. She saved \$16.50 in total. How many pencils did she buy?

5) If $f(x) = x^2$, find the value of $\frac{f(x+6) - f(x)}{6}$

Fill in the blanks

6) If $y = -1$,

$(-2y^2 + 8y + 1) - (-4y^2 + 8y + 6) = \underline{\hspace{2cm}}$

7) Ages of Kaseem and Shaheem are in ratio 2:7. If sum of their ages is 40 years, age of Shaheem is years.

Choose correct answer(s) from given choice

8) If $2x + 2 = 24$, what is the value of $2x - 2$?

a. 23

b. 17

c. 20

d. 27

9) Eshan earns \$x daily and spends \$y per week. What is his saving for 7 weeks?

a. $7x + 48y$

b. $48x - 7y$

c. $7x - 48y$

d. $48x + 7y$

10) A poultry farm produced $14q^2 + 2q + 3$ eggs in a year. It packaged $2q^2 + 3q + 8$ eggs and