

**Review for January Exam**  
**Chapter 5: Polynomials Answer Section**

**MULTIPLE CHOICE**

1. B
2. B
3. D
4. A
5. D
6. B
7. B
8. B
9. C
10. A
11. C
12. D
13. C
14. C
15. B
16. B

**SHORT ANSWER**

- 17)  $2x^2 - x + 2$
- 18)  $7x^2 - 3x - 6$
- 19)  $8x^2 - 5x - 3$
- 20)  $16x + 30$
- 21)  $4x^2 - 2x + 9$
- 22)  $3x^2 + 20x - 8$
- 23)  $-10x^2 - 25$
- 24)  $16 - 4x + 10x^2$
- 25)  $-3 + 5m$
- 26)  $-8x^2 - 6xy + 10xz$
- 27)  $5x - 2y + 3z$

**PROBLEM**

30. ANS:

a) Perimeter =  $3x + 3x + (4x + 5) + 3x + (4x + 5) + 3x + 3x + 3x$   
 $= 26x + 10$

b) Area =  $3x(3x) + 3x(3x + 4x + 5)$   
 $= 9x^2 + 9x^2 + 12x^2 + 15x$   
 $= 30x^2 + 15x$

c) Perimeter:

$$\begin{aligned} &26x + 10 \\ &= 26(6) + 10 \\ &= 166 \end{aligned}$$

Area:

$$\begin{aligned} &30x^2 + 15x \\ &= 30(6)^2 + 15(6) \\ &= 1170 \end{aligned}$$

**Problems Answers**

28)a)  $5(4(x + 3))$   
 $= 5(4x + 12)$   
 $= 20x + 60$

b) Substitute  $x = 12$  into  $20x + 60$ .  
 $20(12) + 60 = 300$   
 The area of the rectangle when  $x = 12$  is 300 square units.

29) Length of deck =  $(40p^2 + 24p) \div 8p$   
 $= \frac{40p^2}{8p} + \frac{24p}{8p}$   
 $= 5p + 3$

b) Length:

Substitute  $p = 4$  into  $5p + 3$ .  
 $5p + 3$   
 $= 5(4) + 3$   
 $= 23$

Width:

Substitute  $p = 4$  into  $8p$ .

$$\begin{aligned} &8p \\ &= 8(4) \\ &= 32 \end{aligned}$$

Area:

$$\begin{aligned} A &= l \times w \\ &= 23 \times 32 \\ &= 736 \end{aligned}$$

The area of the deck is 736 m<sup>2</sup>.