

$$1. \text{ Factors of } 22 \\ = 1, 2, 11, 22$$

$$2. \text{ G.C.D} \\ 15, 45x \text{ and } 10x^4 \\ = 5$$

$$3. \text{ Factor} \\ 2w-4 \\ = 2(w-2)$$

$$4. 45x^4, 5x^5 \text{ and } 15x \\ \text{GCF of } x^4, x^5, x = x \\ \text{GCF of } 45, 5, 15 = 5 \\ = 5x$$

$$5. 16x^3 + 20x^2 \\ \text{GCF} = 4x^2 \\ 4x^2(4x+5)$$

$$6. 30u^2x^7 - 5u^9x^6y^5 \\ = -5u^9x^6y^5 + 30u^2x^7 \\ = 5u^2x^6(-u^7y^5 + 6x)$$

$$7. xy + 7y - 2x - 14 \\ = xy - 2x + 7y - 14 \\ = (y-2)(x+7)$$

$$8. y^2 - 9y + 14 \\ \text{sum} = -9 \\ \text{pro} = 14 \\ = -2, -7 \\ = (y-2)(y-7)$$

$$9. y^2+11y+30$$

$$\text{sum} = +11$$

$$\text{pro} = +30$$

$$= 5, 6$$

$$= (y+5)(y+6)$$

$$10. 4v^2-44v-48$$

$$= 4(v+1)(v-12)$$

$$11. 5w^2+45w+70$$

$$= 5(w+2)(w+7)$$

$$12. 3y^2+4y-4$$

$$= (3y-2)(y+2)$$

$$13. 28x^3-x-2$$

$$28x^2-x-2$$

$$14. -6v^2+24v+72$$

$$= 6(-v-2)(v-6)$$

$$15. Y^2+14y+49$$

$$\text{Sum} = 14$$

$$\text{Pro} = 49$$

$$= 7, 7$$

$$= (y+7)(y+7)$$

$$16. 81-u^2$$

$$= -u^2+81$$

$$= (u+9)(-u+9)$$

$$17. 64w^2-4w^4$$

$$= 4w^2(w+4)(-w+4)$$

$$18.(7+w)(3w+2)=0$$

$$=3w^2+23w+14$$

$$=(3w+2)(w+7)$$

$$=3w+2=0$$

$$W=-\frac{2}{3}$$

$$=w+7=0$$

$$W=-7$$

$$W=-\frac{2}{3}, -7$$

$$19.Y^2-6y+9=0$$

$$=(y-3)(y-3)=0$$

$$=y-3=0$$

$$Y=3$$

$$20.(W-4)^2=2w^2-13w+10$$

$$=w^2-8w+16=2w^2-13w+10$$

$$=-w^2+5w+6=0$$

$$=(-w-1)(w-6)=0$$

$$-w-1=0$$

$$W=-1$$

$$=w-6=0$$

$$W=6$$

$$W=-1, 6$$