Factorizations Ex 7.5 Q16

Answer :

$$x^3 - 144x$$
$$= x\left(x^2 - 144\right)$$
$$= x\left(x^2 - 12^2\right)$$
$$= x\left(x - 12\right)\left(x + 12\right)$$

Factorizations Ex 7.5 Q17

Answer :

$$\left(x - 4y\right)^2 - 625$$
$$= \left(x - 4y\right)^2 - 25^2$$
$$= \left[\left(x - 4y\right) - 25\right]\left[\left(x - 4y\right) + 25\right]$$
$$= \left(x - 4y - 25\right)\left(x - 4y + 25\right)$$

Factorizations Ex 7.5 Q18

Answer :

$$9(a-b)^2-100(x-y)^2$$
$$=[3(a-b)]^2-[10(x-y)]^2$$
$$=[3(a-b)-10(x-y)][3(a-b)+10(x-y)]$$
$$=(3a-3b-10x+10y)(3a-3b+10x-10y)$$

Factorizations Ex 7.5 Q19

Answer :

$$(3+2a)^2-25a^2$$
$$=(3+2a)^2-(5a)^2$$
$$=[(3+2a)-5a][(3+2a)+5a]$$
$$=(3+2a-5a)(3+2a+5a)$$
$$=(3-3a)(3+7a)$$
$$=3(1-a)(3+7a)$$

Factorizations Ex 7.5 Q20

Answer :

$$(x+y)^2-(a-b)^2$$
$$=[(x+y)-(a-b)][(x+y)+(a-b)]$$
$$=(x+y-a+b)(x+y+a-b)$$

********** END **********