1 解答 (1) $64x^2-16x+1$　　(2) $9x^2+30x+25$　　(3) $16a^2+56a+49$

(4) $4m^2-36m+81$　　(5) $25p^2-80p+64$　　(6) $4x^2+12xy+9y^2$

(7) $a^2-18ab+81b^2$　　(8) $49x^2-28xy+4y^2$　　(9) $16x^2+40xy+25y^2$

(10) $x^2+xy+\dfrac{1}{4}y^2$　　(11) $a^2-\dfrac{1}{3}ab+\dfrac{1}{36}b^2$　　(12) $9a^2-15ab+\dfrac{25}{4}b^2$

(1) $(8x-1)^2=(8x)^2-2\times1\times8x+1^2$
$\qquad=64x^2-16x+1$

(2) $(3x+5)^2=(3x)^2+2\times5\times3x+5^2$
$\qquad=9x^2+30x+25$

(3) $(4a+7)^2=(4a)^2+2\times7\times4a+7^2$
$\qquad=16a^2+56a+49$

(4) $(2m-9)^2=(2m)^2-2\times9\times2m+9^2$
$\qquad=4m^2-36m+81$

(5) $(-5p+8)^2=(-5p)^2+2\times8\times(-5p)+8^2$
$\qquad=25p^2-80p+64$

(6) $(2x+3y)^2=(2x)^2+2\times3y\times2x+(3y)^2$
$\qquad=4x^2+12xy+9y^2$

(7) $(a-9b)^2=a^2-2\times9b\times a+(9b)^2$
$\qquad=a^2-18ab+81b^2$

(8) $(7x-2y)^2=(7x)^2-2\times2y\times7x+(2y)^2$
$\qquad=49x^2-28xy+4y^2$

(9) $(-4x-5y)^2=(-4x)^2-2\times5y\times(-4x)+(5y)^2$
$\qquad=16x^2+40xy+25y^2$

(10) $\left(x+\dfrac{1}{2}y\right)^2=x^2+2\times\left(\dfrac{1}{2}y\right)\times x+\left(\dfrac{1}{2}y\right)^2$
$\qquad=x^2+xy+\dfrac{1}{4}y^2$

(11) $\left(a-\dfrac{1}{6}b\right)^2=a^2-2\times\dfrac{1}{6}b\times a+\left(\dfrac{1}{6}b\right)^2$

$\qquad=a^2-\dfrac{1}{3}ab+\dfrac{1}{36}b^2$

(12) $\left(3a-\dfrac{5}{2}b\right)^2=(3a)^2-2\times\dfrac{5}{2}b\times3a+\left(\dfrac{5}{2}b\right)^2$

$\qquad=9a^2-15ab+\dfrac{25}{4}b^2$

2 解答 (1) x^2-4　　(2) a^2-81　　(3) x^2-36　　(4) x^2-144　　(5) a^2-225

(6) a^2-100　　(7) $-m^2+49$　　(8) $x^2-\dfrac{4}{9}$　　(9) $x^2-\dfrac{1}{16}$

(1) $(x+2)(x-2)=x^2-2^2\ =x^2-4$

(2) $(a+9)(a-9)=a^2-9^2\ =a^2-81$

(3) $(x-6)(x+6)=x^2-6^2\ =x^2-36$

(4) $(x+12)(x-12)=x^2-12^2\ =x^2-144$

(5) $(a-15)(a+15)=a^2-15^2\ =a^2-225$

(6) $(a+10)(-10+a)=(a+10)(a-10)\ =a^2-10^2$
$\qquad\qquad\qquad\qquad\qquad\qquad=a^2-100$

(7) $(7-m)(m+7)=-(m-7)(m+7)$
$\qquad\qquad\qquad=-(m^2-7^2)$
$\qquad\qquad\qquad=-(m^2-49)$
$\qquad\qquad\qquad=-m^2+49$

(8) $\left(x+\dfrac{2}{3}\right)\left(x-\dfrac{2}{3}\right)=x^2-\left(\dfrac{2}{3}\right)^2$
$\qquad\qquad\qquad\quad=x^2-\dfrac{4}{9}$

(9) $\left(-\dfrac{1}{4}+x\right)\left(\dfrac{1}{4}+x\right)=\left(x-\dfrac{1}{4}\right)\left(x+\dfrac{1}{4}\right)$
$\qquad\qquad\qquad\qquad=x^2-\left(\dfrac{1}{4}\right)^2$
$\qquad\qquad\qquad\qquad=x^2-\dfrac{1}{16}$