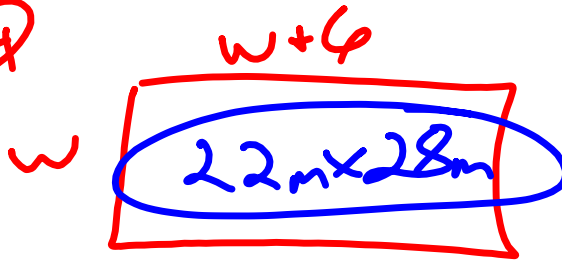


$$\textcircled{P} a \cdot b \cdot a \cdot (-3) \cdot a \cdot (4) \cdot a \cdot (-4) \cdot b \cdot b \cdot a \cdot b$$

$$72a^5b^4$$

(14)



$$w(w+6) + 216 = (w+4)(w+10)$$

$$\begin{array}{r} w^2 + 6w + 216 = w^2 + 14w + 40 \\ -w^2 \quad -4w \quad -40 \quad -w^2 \quad -6w \quad -40 \\ \hline \end{array}$$

$$\frac{176}{8} = \frac{8w}{8} \quad w = 22$$

$$\textcircled{Q} \quad 2^{2x+1} \cdot 2^4 = 2^{\underline{2x+1+4}}$$

$$2^{2x+5}$$

$$\textcircled{5} (-3xy^5)(2x^2)(4x^3y^8)$$
$$-24x^6y^{13}$$

$$\textcircled{5} (5p^3q^5)^2 \cdot (-2p^4)^3$$

$$25p^6q^{10} \cdot (-8p^{12})$$

$$\textcircled{-200p^{18}q^{10}}$$

$$\textcircled{10} (x+8)^2$$

$$(x+8)(x+8)$$

$$x^2 + 16x + 64$$

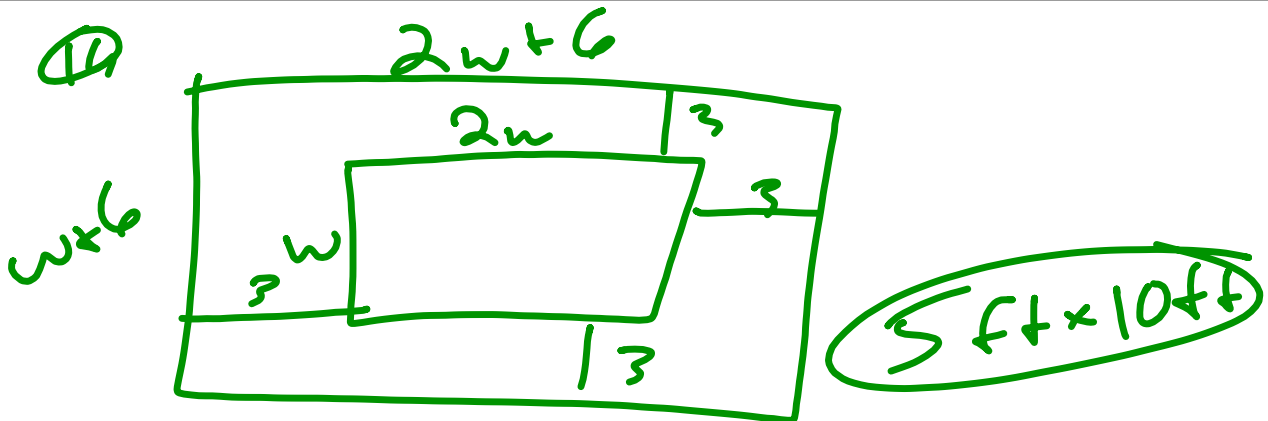
⑤

	r	t	d
N	$k+2$	$\frac{1}{2}$	$\frac{1}{2}k+1$
K	k	$\frac{1}{2}$	$\frac{1}{2}k$

$$\frac{1}{2}k+1 + \frac{1}{2}k = 6.2$$

$$\begin{array}{r} k+1 = 6.2 \\ \underline{-1 \quad -1} \\ k = 5.2 \end{array}$$

$\text{dog } \frac{1}{2} \rightarrow 5.2 \text{ km/h}$
 $\text{Nick} \rightarrow 7.2 \text{ km/h}$



$$(2w+6)(w+6) - w(2w) = 126$$

$$\cancel{2w^2} + 18w + 36 - \cancel{2w^2} = 126$$

$$\begin{array}{r} 18w + 36 \\ - 36 \\ \hline 18w = 90 \\ \frac{18}{18} \quad \frac{90}{18} \\ \hline w = 5 \end{array}$$

$$\textcircled{10} (3x+5)(7x-2)$$

$$21x^2 + 29x - 10$$

HW Solutions

$$\textcircled{42} \quad 3x^8 + 48x^5 + 192x^2$$

$$3x^2(x^6 + 16x^3 + 64)$$

$$3x^2(x^3 + 8)^2$$

$$\textcircled{30} \quad 125u^2 - 50u + 5$$
$$5(25u^2 - 10u + 1)$$

$$5(5u - 1)^2$$

$$(5u - 1)^2 = (5u - 1)(5u - 1)$$
$$25u^2 - \underline{5u} - \underline{5u} + 1$$

$$\textcircled{38} \quad y^4 - 14y^3 + 49y^2$$

$$y^2 (y^2 - 14y + 49)$$

$$y^2 (y - 7)^2$$

$$\textcircled{29} \quad 9 + 16c^2 - 24c$$

$$16c^2 - 24c + 9$$

$$(4c - 3)^2$$

30 $49a^2 + 28ab + 4b^2$

$(7a + 2b)^2$

$$(4) \quad 8u^3 - 24u^2v + 18uv^2$$

$$2u(4u^2 - 12uv + 9v^2)$$

$$2u(2u - 3v)^2$$

$$\textcircled{34} \quad 3a^2 - 18a + 27$$

$$3(a^2 - 6a + 9)$$

$$3(a - 3)^2$$

50

$$a^4 + 2a^2b^4 + b^8$$

$$(a^2 + b^4)^2$$

(52) $121c^4 - 264c^2 + 144$

$(11c^2 - 12)^2$

48

$$4 - 4y^2 + y^4$$

$$(2 - y^2)^2$$

$$y^4 - 4y^2 + 4$$

$$(y^2 - 2)^2$$

$$5x + 25y$$

$$5(x + 5y)$$

$$n^2 - 8n + 16$$

$$(n-4)^2$$

$$36x^2 - 25$$

$$(6x + 5)(6x - 5)$$

$$16k^2 - 40k + 25$$

$$(4k - 5)^2$$

$$16a^2 - b^2c^2$$

$$(4a + bc)(4a - bc)$$

$$49x^2 + 56x + 9$$

$$7x \quad 3$$

not a perfect square