

Exercise A

2.

- a i** 7 **ii** 6.5 **iii** 6.1
iv 6.01 **v** $h + 6$
b 6

3.

- a i** 9 **ii** 8.5 **iii** 8.1
iv 8.01 **v** $8 + h$
b 8
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Exercise B

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|--|--|--|
| 1 $7x^6$ | 2 $8x^7$ | 3 $4x^3$ |
| 4 $\frac{1}{3}x^{-\frac{2}{3}}$ | 5 $\frac{1}{4}x^{-\frac{1}{4}}$ | 6 $\frac{1}{3}x^{-\frac{2}{3}}$ |
| 7 $-3x^{-4}$ | 8 $-4x^{-5}$ | 9 $-2x^{-3}$ |
| 10 $-5x^{-6}$ | 11 $-\frac{1}{3}x^{-\frac{2}{3}}$ | 12 $-\frac{4}{2}x^{-\frac{3}{2}}$ |
| 13 $-2x^{-3}$ | 14 1 | 15 $3x^2$ |
| 16 $9x^8$ | 17 $5x^4$ | 18 $3x^2$ |
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Exercise C

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|-------------------------|--------------------|---------------|
| a $4x - 6$ | b $x + 12$ | c $8x$ |
| d $16x + 7$ | e $4 - 10x$ | |
| a 12 | b 6 | c 7 |
| d $2\frac{1}{2}$ | e -2 | f 4 |
| 4, 0 | 4 (-1, -8) | |
| 1, -1 | 6 6, -4 | |
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Exercise D

- 1** a $4x^3 - x^{-2}$ b $-x^{-3}$ c $-x^{-\frac{2}{3}}$
2 a 0 b $11\frac{1}{2}$
3 a $(2\frac{1}{2}, -6\frac{1}{4})$ b $(4, -4)$ and $(2, 0)$
c $(16, -31)$ d $(\frac{1}{2}, 4)$ $(-\frac{1}{2}, -4)$
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Exercise E

- 1** a $x^{-\frac{1}{2}}$ b $-6x^{-3}$ c $-x^{-4}$
d $\frac{4}{3}x^3 - 2x^2$ e $-6x^{-4} + \frac{1}{2}x^{-\frac{1}{2}}$
f $\frac{1}{3}x^{-\frac{2}{3}} - \frac{1}{2}x^{-2}$ g $-3x^{-2}$ h $3 + 6x^{-2}$
i $5x^{\frac{3}{2}} + \frac{3}{2}x^{-\frac{1}{2}}$ j $3x^2 - 2x + 2$ k $12x^3 + 18x^2$
l $24x - 8 + 2x^{-2}$
2 a 1 b $\frac{2}{9}$ c -4 d 4
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Exercise F

- 1** $24x + 3, 24$
2 $15 - 3x^{-2}, 6x^{-3}$
3 $\frac{9}{2}x^{-\frac{1}{2}} + 6x^{-3}, -\frac{9}{4}x^{-\frac{3}{2}} - 18x^{-4}$
4 $30x + 2, 30$
5 $-3x^{-2} - 16x^{-3}, 6x^{-3} + 48x^{-4}$
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Exercise G

- 1** $2t - 3$ **2** 2π
3 $-12t^{-2}$ **4** 9.8
5 $1 - 5r^{-2}$ **6** $-12 + 8t$
7 $10 - 2x$
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Exercise H

- 1** **a** $y + 3x - 6 = 0$ **b** $4y - 3x - 4 = 0$
 c $3y - 2x - 18 = 0$ **d** $y = x$
 e $y = 12x + 14$ **f** $y = 16x - 22$
- 2** **a** $7y + x - 48 = 0$ **b** $17y + 2x - 212 = 0$
- 3** $(1\frac{2}{3}, 1\frac{8}{9})$
- 4** $y = -x, 4y + x - 9 = 0$
- 5** $y = -8x + 10, 8y - x - 145 = 0$
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