

Year 9 Mathematical Skills Practice Answers

Set 1

1. 813
2. $4\frac{1}{5}$
3. 360
4. \$12
5. \$24:\$12
6. 22 m
7. 28 m^2
8. 40 m^3
9. 8450 mm
10. 50°
11. 19
12. $y = \frac{3}{2}x + 3$
13. $x(x - 5)$
14. a^6
15. $\frac{3a}{2}$

Set 2

1. 185
2. $\frac{25}{7}$
3. 520
4. 24 kg
5. \$16:\$24
6. 32 mm
7. 64 mm^2
8. 8 m^3
9. 585.2 cm
10. 50°
11. -4
12. $x = 4 - \frac{5}{3}y$
13. $2m(3m + 2)$
14. m^4n^2
15. $\frac{x}{8}$

Set 3

1. 1325
2. 60%
3. 2.34
4. \$88
5. 48 kg:12 kg
6. 30 m
7. 56 m^2
8. 60 cm^3
9. 8 litres
10. 99°
11. -76
12. $A = \frac{5}{3}C + \frac{2}{3}B$
13. $2x(3x + 4)$
14. $3x - 12y$
15. $24x^3$
16. $\frac{5m}{8}$

Set 4

1. 247
2. $\frac{7}{10}$
3. 0.008
4. 72 kg
5. \$10:\$70
6. 48 m
7. 135 m^2
8. 27 cm^3
9. 3000 m
10. 40°
11. -105
12. $y = 3(x + z)$
13. $3m(3m - 4n)$
14. $15a + 20b$
15. x^6
16. $\frac{n}{6}$

Set 5

1. 14 203
2. 0.45
3. 1.398
4. \$300
5. 18 kg:27 kg
6. 12 cm
7. 6 cm^2
8. 64 mm^3
9. 800 m
10. 27°
11. -21
12. $m = n - pq$
13. $2x(5x - 6y)$
14. $15x + 10y$
15. m^8
16. $\frac{m}{6}$

Set 6

1. 2548
2. 80%
3. 93 420
4. 150 mm
5. \$500:\$200
6. 24 cm
7. 12 cm^2
8. 48 cm^3
9. 64 800 mm
10. 60°
11. 23
12. $s = \frac{p-r}{t}$
13. $6ac(b + 3a)$
14. $3ab - 5ac$
15. a^6
16. $\frac{7x}{9}$

Set 7

1. 595
2. 38.7%
3. 2.34
4. \$7200
5. 200 m:50 m
6. 22.5 m
7. 24 m^2
8. 80 cm^3
9. 0.91 mm
10. 30°
11. -9
12. $B = \sqrt{A}$
13. $4x(y + 2x - 3)$
14. $3m^2 + 5mn$
15. $30x^4y^4$
16. $\frac{13m}{10}$

Set 8

1. 1944
2. $5\frac{4}{7}$
3. 0.05
4. 1300 kg
5. 9 kg:15 kg
6. 26 m
7. 34 m^2
8. 48 cm^3
9. 0.43 km
10. 50°
11. 18
12. $y = \sqrt{\frac{5x}{4}}$
13. $6a(3a - 2b)$
14. $6x^2 - 10xy$
15. $6x^3y^{10}z^9$
16. $\frac{3x}{4}$

Set 9

1. 882
2. $\frac{62}{9}$
3. 0.04
4. \$230
5. \$450:\$50
6. 28 m
7. 36 m^2
8. 40 cm^3
9. 0.65 tonnes
10. 65°
11. 26
12. $b = \frac{a+c}{3}$
13. $-8xy(2x + 3)$
14. $42y + 18y^2$
15. m^5
16. $\frac{11p}{16}$

Set 10

1. 15
2. $\frac{43}{50}$
3. 910
4. \$840
5. \$90:\$210
6. 56 m
7. 144 m^2
8. 60 000 cm^3
9. 60 litres
10. 40°
11. -3
12. $y = 7 - x$
13. $7pq(2q^2 - 3p)$
14. $12p^2q + 20p$
15. $6x^6$
16. $\frac{17n}{21}$

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Set 11

- 31
- 0.075
- 8.593
- 60 m
- 40 kg:48 kg
- 48 mm
- 120 mm²
- 125 cm³
- 370 kg
- 115°
- 12
- $q = \frac{m-3p}{4}$
- $(a-5b)(a+5b)$
- $15x^2 - 21xy$
- m^3n^4
- $\frac{11x}{8}$

Set 12

- 43
- $\frac{9}{80}$
- 40.9
- 10.5 tonnes
- \$640:\$160
- 38 m
- 66 m²
- 2.5 m³
- 0.05 kg
- 43°
- 144
- $c = \frac{a}{bd}$
- $(x+3)(5-y)$
- $12m^3 - 2m$
- $4x^8$
- $\frac{n}{2}$

Set 13

- 18
- 3.1%
- 0.5693
- \$48
- \$150:\$100:\$50
- 40 cm
- 64 cm²
- 6.4 m³
- 200 g
- 113°
- 40
- $Q = \frac{P+T}{2R}$
- $2(6x^2 + 8xy + 9y^2)$
- $-15mn + 6n^3$
- $a^{12}b^8$
- $\frac{5x}{6}$

Set 14

- 46
- 1.8
- 31.8
- \$618
- 24 m:12 m:12 m
- 60 cm
- 125 mm²
- 10 cm
- 120 seconds
- 121°
- 220
- $y = \frac{x}{3} + z$
- $5m(5m^2 - 3mn + 6)$
- $x^2 - y^2$
- $8x^{18}y^9$
- $\frac{a}{20}$

Set 15

- 9
- 0.026
- 3000
- 720 g
- 100 kg:60 kg
- 10 cm
- 100 cm²
- 8 cm
- 210 minutes
- 122°
- 15
- $n = \frac{7m+5}{3}$
- $6x(3xy - 1)$
- $x^2 + 7x + 10$
- $18x^{13}$
- $\frac{9c}{10}$

Set 16

- 12
- $\frac{29}{1000}$
- 0.00654
- \$192
- 600 m:150 m
- 20 cm
- 200 cm²
- 100
- 650 cm
- 132°
- 9
- $q = \frac{6(p-4)}{5}$
- $3xy(1+4x)$
- $4m^2 - 9n^2$
- 3
- $\frac{11a}{12}$