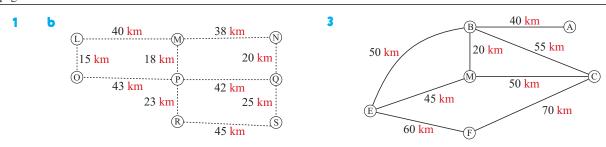
# MATHEMATICS geometry and trigonometry

#### **ERRATA**

# MATHEMATICS FOR YEAR 11 (Fifth Edition) GEOMETRY AND TRIGONOMETRY

# Fifth edition - 2012 reprint

# page 316 EXERCISE 5B.2



# page 412 ANSWERS EXERCISE 1B.1

7 **b**  $\cos(180 - \theta) = -\cos\theta$ 

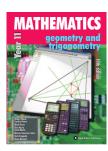
# page 413 ANSWERS EXERCISE 1H

9  $\frac{1}{4}$  10 **a** 6 cm<sup>2</sup> **b** 6 cm<sup>2</sup> 11 **a** 21.3 cm<sup>2</sup> **b** 30.7 cm<sup>2</sup>

# page 428 ANSWERS EXERCISE 3J.1

**9** 343.1 kmph, 092.93°

#### **ERRATA**



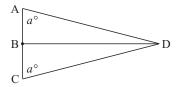
# MATHEMATICS FOR YEAR 11 (Fifth Edition) GEOMETRY AND TRIGONOMETRY

# Fifth edition - 2009 reprint

#### page 153 EXERCISE 3C

3 You are given a triangle which has two equal angles at A and C. BD bisects ∠ADC.

Use this figure and congruence only to prove 'the equal angles of a triangle' theorem.



#### page 200 EXERCISE 3M

7 f -3i + 4j with length  $\sqrt{3}$  units

page 274 **EXAMPLE 38** Question and the first line of the solution should read:

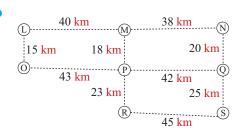
If  $\cos x = \frac{3}{5}$  and  $\frac{3\pi}{2} < x < 2\pi$  find the exact value of  $\cos\left(\frac{x}{2}\right)$ .

As  $\frac{3\pi}{2} < x < 2\pi$  then  $\frac{3\pi}{4} < \frac{x}{2} < \pi$  and so,  $\cos\left(\frac{x}{2}\right) < 0$ .

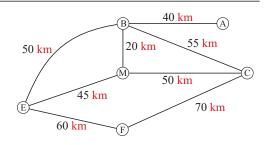
#### page 290 REVIEW EXERCISE 4H

**59** Show that  $(\cos \theta - \sin \theta)^2$  simplifies to  $1 - \sin 2\theta$ .

#### page 316 EXERCISE 5B.2



3



#### page 412 ANSWERS EXERCISE 1B.1

**7 b** 
$$\cos(180 - \theta) = -\cos\theta$$

# page 413 ANSWERS EXERCISE 1H

9  $\frac{1}{4}$  10 **a** 6 cm<sup>2</sup> **b** 6 cm<sup>2</sup>

**11 a**  $21.3 \text{ cm}^2$  **b**  $30.7 \text{ cm}^2$ 

#### page 418 ANSWERS EXERCISE 2H.2 replace answers to question 11 and 12 with:

11 
$$(x-2)^2 + (y-3)^2 = 9$$

12 
$$2x - y = 5$$

13 
$$k = 0$$

14 centre (0, 0), radius  $\sqrt{5}$  units, centre (3, -6), radius  $4\sqrt{5}$  units, distance between centres is  $3\sqrt{5}$  units, point of contact (-1, 2)

**4 b** 0.429 secs

# page 428 ANSWERS EXERCISE 3J.1

**9** 343.1 kmph, 092.93°

#### page 430 ANSWERS EXERCISE 30

1 e 52

#### page 438 ANSWERS EXERCISE 4F.5

**4 b** 
$$\sin \beta = \frac{-\sqrt{21}}{5}$$
,  $\sin 2\beta = \frac{-4\sqrt{21}}{25}$ 

#### page 438 ANSWERS EXERCISE 4G.1

1 ii (delete b to the left of ii)

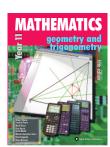
**iii**  $y = \tan 2x$ 

#### page 439 ANSWERS EXERCISE 4G.3

**1** j 1

#### page 439 ANSWERS EXERCISE 4G.4 answer numbering change: $1\ a$ to $1\ c$

1 
$$\mathbf{c}$$
  $\tan(A-B) = \frac{\tan A - \tan B}{1 + \tan A \tan B}$ 



#### **ERRATA**

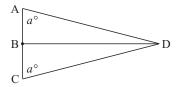
# MATHEMATICS FOR YEAR 11 (Fifth Edition) GEOMETRY AND TRIGONOMETRY

# Fifth edition - 2007 reprint

#### page 153 EXERCISE 3C

3 You are given a triangle which has two equal angles at A and C. BD bisects ∠ADC.

Use this figure and congruence only to prove 'the equal angles of a triangle' theorem.



#### page 200 EXERCISE 3M

7 f -3i + 4j with length  $\sqrt{3}$  units

page 274 **EXAMPLE 38** Question and the first line of the solution should read:

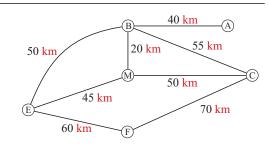
If  $\cos x = \frac{3}{5}$  and  $\frac{3\pi}{2} < x < 2\pi$  find the exact value of  $\cos\left(\frac{x}{2}\right)$ .

As  $\frac{3\pi}{2} < x < 2\pi$  then  $\frac{3\pi}{4} < \frac{x}{2} < \pi$  and so,  $\cos\left(\frac{x}{2}\right) < 0$ .

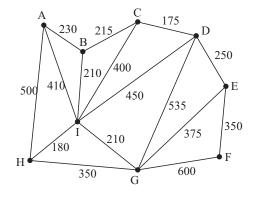
#### page 290 REVIEW EXERCISE 4H

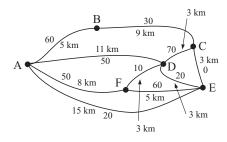
**59** Show that  $(\cos \theta - \sin \theta)^2$  simplifies to  $1 - \sin 2\theta$ .

# page 316 EXERCISE 5B.2



page 354 REVIEW EXERCISE 5H question 18 diagram should be:





#### page 412 ANSWERS EXERCISE 1A.1

2 c \( \lambda KLM \) is a right angle (within the limitations of measurement)

#### page 412 ANSWERS EXERCISE 1B.1

7 **b**  $\cos(180 - \theta) = -\cos\theta$ 

#### page 412 ANSWERS EXERCISE 1E

**20** 30.78 m

# page 413 ANSWERS EXERCISE 1H

9  $\frac{1}{4}$  10 **a** 6 cm<sup>2</sup> **b** 6 cm<sup>2</sup>

**11 a**  $21.3 \text{ cm}^2$  **b**  $30.7 \text{ cm}^2$ 

#### page 418 ANSWERS EXERCISE 2H.2 replace answers to question 11 and 12 with:

11 
$$(x-2)^2 + (y-3)^2 = 9$$

12 
$$2x - y = 5$$

13 
$$k = 0$$

14 centre (0, 0), radius  $\sqrt{5}$  units, centre (3, -6), radius  $4\sqrt{5}$  units, distance between centres is  $3\sqrt{5}$  units, point of contact (-1, 2)

#### page 420 ANSWERS EXERCISE 2K.3

**4 b** 0.429 secs

#### page 428 ANSWERS EXERCISE 3J.1

**9** 343.1 kmph, 092.93°

#### page 430 ANSWERS EXERCISE 30

1 e 52

# page 438 ANSWERS EXERCISE 4F.5

**4 b** 
$$\sin \beta = \frac{-\sqrt{21}}{5}$$
,  $\sin 2\beta = \frac{-4\sqrt{21}}{25}$ 

#### page 438 ANSWERS EXERCISE 4G.1

1 ii (delete b to the left of ii)

 $y = \tan 2x$ 

#### page 439 ANSWERS EXERCISE 4G.3

**1** j 1

# page 439 ANSWERS EXERCISE 4G.4 answer numbering change: 1 a to 1 c

1 **c** 
$$\tan(A - B) = \frac{\tan A - \tan B}{1 + \tan A \tan B}$$

#### page 441 ANSWERS EXERCISE 5A.3

3 a and e, b and d, c and f, h and j

#### page 444 ANSWERS EXERCISE 5B.3