Year 8 Circles, Area and Volume – Foundation

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Answers and worked solutions · 10 questions

A. Circle and area skills

1. 59.66 cm

C = πd
= 3.14 × 19 = 59.66 cm

2. 75.36 cm

C = πd = 2πr
= 3.14 × 24 = 75.36 cm

3. 3.14; it is π (pi)

78.5 ÷ 25 = 3.14
For every circle, C ÷ d is the same number, π

4. about 45 miles

72 × 5/8
= 45 miles

5. about 92.8 km

58 × 1.6
= 92.8 km

6. 84 cm^2

Area of a trapezium = ½(a + b)h
½ × (6 + 15) × 8 = 84 cm^2

7. 49 cm^2

Area of a trapezium = ½(a + b)h
½ × (3 + 11) × 7 = 49 cm^2

8. 59.5 cm^2

Area of a trapezium = ½(a + b)h
½ × (6 + 11) × 7 = 59.5 cm^2

9. 12 vertices

V – E + F = 2
V – 18 + 8 = 2, so V = 12

10. 4 faces

V – E + F = 2
4 – 6 + F = 2, so F = 4