Workout

Question 1:

(a) 157° (b) 67° (c) 125° (d) 127°

(e) 146° (f) 111° (g) 72° (h) 130°

(i) 45° (j) 125° (k) 136° (l) 80°

(m) 129° (n) 27°

Question 2:

(a) 1440° (b) 2160° (c) 3240° (d) 7740°

(e) 8640° (f) 14040° (g) 17640° (h) 35640°

Question 3:

(a) 9 sides (b) 18 sides (c) 24 sides (d) 30 sides

(e) 70 sides (f) 90 sides (g) 15 sides (h) 500 sides

Question 4:

(a) 108° (b) 120° (c) 135° (d) 140°

(e) 144° (f) 150°

Question 5:

(a) 156° (b) 162° (c) 165° (d) 168°

(e) 170° (f) 171° (g) 172.8° (h) 174°

(i) 175° (j) 175.5° (k) 176° (l) 176.4°

Question 6:

(a) 72° (b) 60° (c) 45° (d) 40°

(e) 36° (f) 30°

Question 7

(a) 24° (b) 20° (c) 18° (d) 15°

(e) 12° (f) 10° (g) 9° (h) 8°

(i) 6° (j) 5° (k) 4° (l) 1.8°

Question 8

(a) 10 sides (b) 72 sides (c) 180 sides

(d) 120 sides (e) 32 sides (f) 48 sides

Apply

Question 1:

(a) 144°

(b) 117°

(c) 105°

(d) 132°

Question 2: 36°

Question 3: 160°

Question 4: 168°

Question 5: 360 divided by the exterior angle gives the number of sides.

As 360 divided by 7 is not a whole number, it cannot be a regular polygon.

Question 6: 12 sides

Question 7: In order to tessellate, the shapes must fit perfectly together. 3 regular hexagons, will meet at a point with 3 angles, each of 120°, so will fit together.

Question 8: Three pentagons will meet and leave a gap of 36°, whereas four pentagons would overlap.