

الرياضيات

الأسئلة المعلنه للعام الدراسي 2010

8

1

Evaluate $4xy - 2x + 3y + 1$

for $x = 9$ and $y = -4$

-81

-96

-148

-173

Key: 4

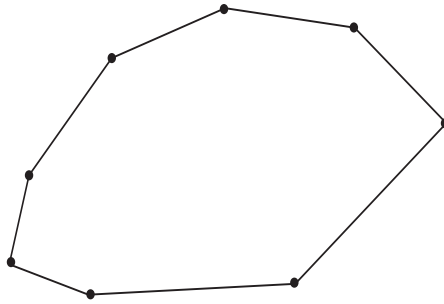
Strand: Number and algebra

Standard: 04.3 Evaluate linear expressions or formulae by substituting given integer values ...

DOK: 01 Understanding

2

Look at the irregular octagon below.



What is the sum of the octagon's interior angles?

- 720°
- 860°
- 940°
- 1080°

Key: 4

Strand: Geometry and measures

Standard: 06.1 Calculate interior and exterior angles of polygons.

DOK: 01 Understanding

3

Look at the number triangle below.

Row 1	1
Row 2	1 1
Row 3	1 2 1
Row 4	1 3 3 1
Row 5	1 4 6 4 1
Row 6	1 5 10 10 5 1

What is the sum of Row 8?

- 64
- 93
- 128
- 256

Key: 3

Strand: Number and algebra

Standard: 05.3 Generalise the relationship between one term of a sequence and the next, or d...

DOK: 02 Application

4

Use your calculator to find $3.4^{1.5}$

Give the first 4 digits.

Answer: _____

		Answer:
		6.269
Correct answer		1 pt
Response is incomplete or irrelevant		0 pts
No response		Blank

Points: 1

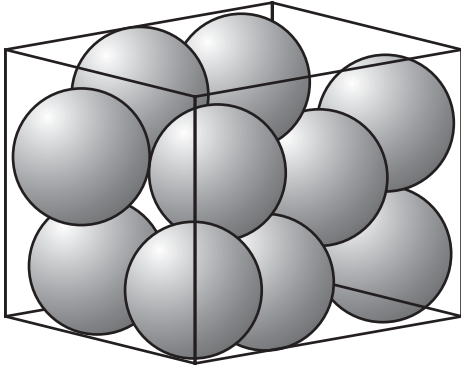
Strand: Number and algebra

Standard: 02.2 Use the x^{\leq} , sqrtx and xy keys of a scientific calculator.

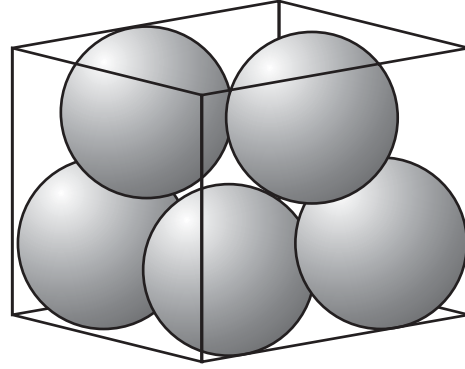
DOK: 02 Application

Look at the two boxes below. Each box has the same volume.

In order to determine which box has the greater density, what other fact do you need to know?



Box A



Box B

Answer: _____

		Answer:
		The mass of the balls
	Correct answer	1 pt
	Response is incomplete or irrelevant	0 pts
	No response	Blank

Points: 1

Strand: Geometry and measures

Standard: 07.4 Know that density = mass/volume; solve problems involving calculating density...

DOK: 01 Understanding

Husain traveled by airplane to visit some relatives. On the way, his airplane traveled at an average speed of 640 kilometers per hour.

If the airplane trip lasted $2\frac{1}{4}$ hours, approximately how many kilometers did the airplane travel?

Show your work here.

Answer: _____

Husain traveled the same distance on the return trip. That flight lasted 3 hours.

What was the airplane's average speed on the return trip?

Show your work here.

Answer: _____

What was the average speed in kilometers per hour for both flights?
Round your answer to the nearest whole number.

Show your work here.

Answer: _____

A. Work Shown:

$$d = rt$$

$$d = 640 \times 2.25 = 1,440$$

B. Answer:

1,440 km

C. Work Shown:

$$d = rt$$

$$1,440 = r \times 3$$

$$r = 1,440 \div 3 = 480$$

D. Answer:

480 kph

E. Work Shown:

Total distance: 2880

Total hours: 5.25

$$2,880 \div 5.25$$

$$\approx 549$$

F. Answer:

≈ 549 kph

Key Elements:

- 1 for finding the distance the airplane traveled AND showing correct work (1,440 km)
- 1 for finding the average speed AND showing the correct work (480 kph)
- 1 for finding the average speed of both flights AND showing the correct work (≈ 549 kph)

3 key elements

3 pts

2 key elements (may have minor computation error)	2 pts
1 key element (may have computation errors OR incomplete work that shows understanding of process but is incomplete)	1 pt
Response is incomplete or irrelevant	0 pts
No response	Blank

Points: 3

Strand: Geometry and measures

Standard: 07.2 Solve problems involving average speed, distance or time, using a calculator ...

DOK: 02 Application