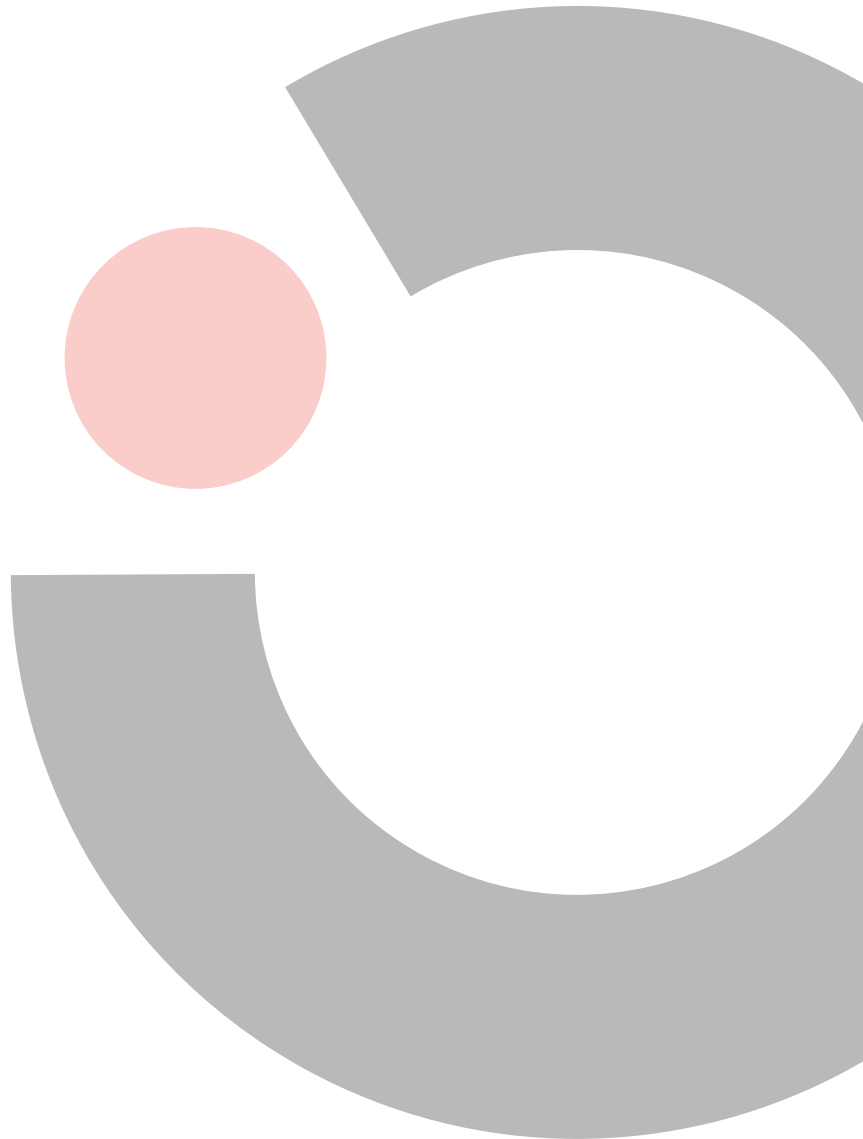# Item Sampler

Grade 5

Cognia
Interim
Assessments

Item Development Overview

Cognia™ uses Evidence-Centered Design (ECD), a principled design approach, to develop test and item specifications. ECD provides a conceptual framework for the design, development, and implementation of assessments that elicit evidence to support valid inferences about what students know and can do.

Item, Task, and Stimulus Specifications

Cognia item and task specifications describe in detail how each standard or cluster of standards is measured. Item and task specifications:

- Identify a targeted cluster of standards
- Define the content limits of the cluster of standards (what can and cannot be included in items assessing that cluster)
- Detail allowable vocabulary to be used in items measuring the standards
- Provide item or task models to outline item types that are appropriate for the targeted standards
- Include sample items

Stimulus specifications provide guidelines for:

- Passage selection
- Development of graphic stimuli to support passages and items

Further, for mathematics, Cognia content experts created detailed item specifications and "focus points" for each practice, breaking each practice into two or three discrete focus points. Cognia Interim Assessments mathematics items address a range of practice focus points.

Item Development Process

Approximately 8800 new items have been developed for these assessments. Drafted items are internally reviewed by content specialists and professional editors for:

- Alignment to standards and item specifications
- Technical quality (accuracy of right answers, usefulness of wrong answer choices, and accuracy and alignment of rubrics to the demands of the items)
- Consistency with universal design (UD) principles
- Avoidance of bias or sensitivity issues; including consideration of global use
- Appropriateness of vocabulary level, item contexts, and reading level

Reviews for Content, Bias, and Sensitivity

All new items are reviewed by educator committees before being selected for field testing. Educators and other expert stakeholders from around the world participate in the review committees. Close to 130 professionals took part in more than 20 content reviews, and more than 85 participated in bias and sensitivity reviews. The international review committee included members from China, Colombia, Egypt, India, Saudi Arabia, and the United States.

For more information, see the Cognia Interim Assessments Overview

Grade 5 | Mathematics

Directions

Today you will take a test in mathematics. For this test, you will answer selected-response questions. Some of the questions may look different from test questions you have seen before, and some may ask about material that is new to you, but it is important to do your best. If you are not sure of the answer to a question, you should still try to answer it.

You may NOT use a calculator to answer the questions in this section.

Alignment

Concepts and Procedures Standard: **05.NF.01.01**

Mathematical Processes Standard: **2**

Key: **D**

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1. Cathy bought $2\frac{5}{6}$ pounds of strawberries at a grocery store. She kept $1\frac{1}{4}$ pounds and gave the rest to Ricardo.

   How many pounds of strawberries did Cathy give to Ricardo?

   A $1\frac{4}{2}$ pounds

   B $1\frac{2}{5}$ pounds

   C $1\frac{1}{6}$ pounds

   D $1\frac{7}{12}$ pounds

Alignment

Concepts and Procedures Standard: **05.NBT.01.03.b**

Mathematical Processes Standard: **7**

Key: **A, E**

---

2. Which number sentences are true? Select the **two** correct answers.

   A 7.168 < 7.68

   B 7.8 > 7.86

   C 7.86 < 7.089

   D 7.06 > 7.8

   E 7.45 > 7.449

---

3. The distance from Lillian's house to her cousin's house is 30 miles. The distance from Lillian's house to her grandma's house is $\frac{1}{5}$ the distance from Lillian's house to her cousin's house.

Based on this information, what is the distance from Lillian's house to her grandma's house?

A 150 miles

B 30 miles

C 25 miles

D 6 miles

4. Which expression has the **least** value?

A $2 \times (4 + 7) - (5 + 1)$

B $2 \times 4 + (7 - 5) + 1$

C $2 \times 4 + 7 - (5 + 1)$

D $2 \times (4 + 7) - 5 + 1$

Directions

Today you will take a test in mathematics. For this test, you will answer selected-response questions. Some of the questions may look different from test questions you have seen before, and some may ask about material that is new to you, but it is important to do your best. If you are not sure of the answer to a question, you should still try to answer it.

You MAY use a calculator to answer the questions in this section.

Alignment

Concepts and Procedures Standard: **05.G.02.03**

Mathematical Processes Standard: **3**

Key: **D**

---

5. Jan claims that since every square has four right angles, every rhombus must also have four right angles. Which statement **best** describes Jan's claim?

    A Jan is correct because every square is a rhombus.

    B Jan is correct because every rhombus is a square.

    C Jan is incorrect because not every square is a rhombus.

    D Jan is incorrect because not every rhombus is a square.

Alignment

Concepts and Procedures Standard: **05.OA.01.02**

Mathematical Processes Standard: **7**

Key: **A**

---

6. Which situation is **best** represented by the expression $(24 - 3) \div 7$?

    A There are 24 students in Mr. Lane's class. Three students are absent. Mr. Lane divides the students who are present into 7 equal groups.

    B There are 24 students in Mr. Lane's class. Seven students are absent. Mr. Lane divides the students who are present into 3 equal groups.

    C There were 24 students in Mr. Lane's class. Three new students joined the class. Mr. Lane divides the students who are present into 7 equal groups.

    D There are 21 students in Mr. Lane's class. Mr. Lane divides the students into 3 equal groups.

---

7. Rochelle's height, to the nearest inch, is 64 inches.

Which is **closest** to Rochelle's height, in feet?

A 5 feet

B $5\frac{1}{4}$ feet

C $5\frac{1}{2}$ feet

D $5\frac{3}{4}$ feet

8. Marco is using this equation to determine the quotient of two numbers, *a* and *b*.

$$a \div b = \boxed{}$$

Neither *a* nor *b* is equal to zero.

Which equation shows a way that Marco can check his answer?

A $\boxed{} + b = a$

B $\boxed{} - b = a$

C $\boxed{} \times b = a$

D $\boxed{} \div b = a$

9. Linda is putting soil in a planter that is in the shape of a rectangular prism. She will leave a 5-inch space between the soil and the top of the planter, as shown.
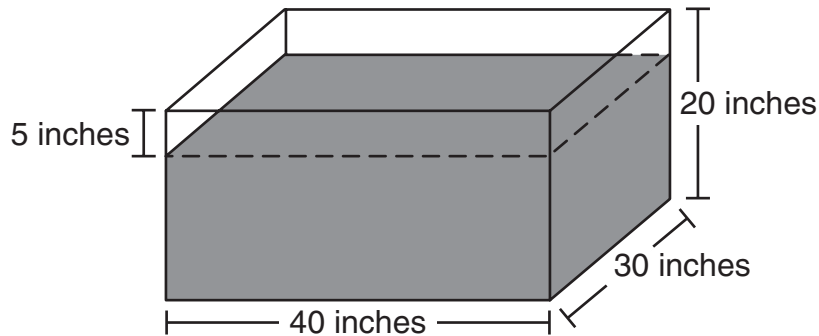
What is the volume of the soil Linda will put into the planter?

A 15,000 cubic inches

B 18,000 cubic inches

C 24,000 cubic inches

D 30,000 cubic inches

Directions

Today you will take a test in reading. For this test, you will read a passage and then answer questions about the passage. Some of the questions may look different from test questions you have seen before, and some may ask about material that is new to you, but it is important to do your best. If you are not sure of the answer to a question, you should still try to answer it.

Read the passage. Then answer the questions that follow.

Matthias and the Dragons

by Maggie Murphy

1   Striding quickly along, Matthias glanced uneasily at the black stone cliffs towering beside him. Ahead, a still lake swarmed with dark clouds of midges. Finally he spied the faraway ocean. Now I know my way back, he thought. I'd better hurry. We're leaving the inn this afternoon, and Father won't be too pleased if I'm late.

2   Matthias spent happy days traveling around the kingdom with his father's band of puppeteers. On village greens at showtime, he joined the puppet masters behind the brightly painted theater. While the men pulled the puppets' strings and spoke for them, Matthias made the scenes even livelier by adding special sounds.

3   When the puppet princess knocked on the giant's castle door, Matthias rapped on a board. When the funny wizard brewed his potions, Matthias clashed pot lids. And when the prince—he had long brown hair like Matthias!—got lost in the forest, Matthias gave wonderful bird calls.

4   Matthias chirped, cheeped, and whistled so well because he spent lots of time listening to wild birds. Life on the road took him to many lonely inns surrounded by woods and meadows calling to be explored. Today, although he hadn't meant to break his father's rule about not going too far, he'd somehow wound up as lost as the puppet prince.

5   Now Matthias turned his steps south, eager to leave the forbidding cliffs and eerie lake, thinking, It's strange that I don't hear a single bird. An instant later, he understood why: a monstrous green dragon winged toward him, swooped, and circled.

6   Feeling like a mouse beneath a hawk, Matthias looked around desperately for a hiding place. The open ground offered no cover, and there wasn't time to dash to the lake and dive underwater. But in the nearby cliff face, he spotted a small hole.

7   With his heart pounding, he darted through the opening only to find he'd entered the smoke-scented cavern of a dragon twice as large as the first! This bright red creature lazed upon its hoard of riches like a great ship at anchor in a gleaming, golden bay. Before Matthias could flee, the dragon's long, scarlet tail thumped down, sealing the hole.

8   Matthias saw no other door to freedom except the cave's gaping mouth, which was located beside the *dragon's* mouth. For a terrible moment, he thought things were hopeless. But he soon realized the monster had merely changed its tail's position while stretching and hadn't noticed him . . . yet. Matthias crept behind two tall rocks. Peeking through a gap between them, he thought, When this dragon leaves to hunt, I'll—

9   The green dragon popped its head into the cavern's entrance. "Hello, dear," it said to the red one. "I'm just checking on the adorable egg."

10   "What a devoted mother," said the red dragon, smiling.

11   Matthias followed the dragons' tender gazes to a jewel heap right in front of his rocky barrier. What he'd believed to be a huge pearl was in fact the shining egg.

12   "No joyful tap-tappings yet?" the mother dragon asked.

13   "Not one, my love," said the father. "I'm guessing that our little darling won't crack out early."

14   "It's so hard to wait." The mother sighed happily, spewing flames. "Well, I'd best soar on to pick up lunch. Would you prefer deer or wild boar?"

15   "Pork sounds delicious."

16   "Perfect. I'll grab six plump boars and flap straight back," said the mother, and she flew away.

17   I *have* to sneak off before that lady dragon returns, thought Matthias. A protective new mother has eyes in the back of her head. He wanted to groan as the father, showing no signs of moving his tail, started sorting a treasure pile.

18   If only the egg would hatch, Matthias thought. That would get Papa on his feet. Suddenly, Matthias knew what to do. Imagining himself back at the puppet theater, he picked up a stone and struck it on the big rock sheltering him.

19   *Tap.*

20   The dragon paused, a diamond-encrusted crown dangling from one claw. Matthias forced himself to wait through a long minute of silence, thinking, Go slow. This performance must sound natural.

21   *Tap.*

22   "I *did* hear something!" cried the dragon. "Daddy's coming!"

23   As he lumbered toward the egg, his tail slid away from the hole. But Matthias couldn't risk tiptoeing off until he felt sure the dragon wouldn't look up.

24   *Tap-tap.*

25   "Old Dad's here, sweetie, ready to greet you," the excited dragon told the egg. "And Mommy's flying home soon, bringing nice, fat piggy-wiggies!"

26   Matthias gave a last *tap-tap* before slipping out of the cave, scanning the empty sky, and running away. When he drew near the inn, he thought, My adventure's just the kind of thing that happens to the puppet prince. Maybe we could . . .

27   A week later, Matthias sat behind the puppet theater's cave scene with his noisemaking tools ready. He grinned as the trapped prince told the audience, "I'll fool the dragon into believing the egg is hatching!"

28   The prince tapped with a fake stone; Matthias tapped with a real one. The crowd laughed loudly as the dragon puppet's pointed ears shot up and his head swiveled toward a wooden egg.

Illustration by Rebecca Guay

29   Matthias looked at his smiling father, thinking, Everyone loves our new show!

30   *Tap-tap.*

Grade 5 | Reading

Alignment

Standard: **RL.05.06**

Key: **D**

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1. Which detail from paragraph 2 **best** demonstrates that Matthias makes the puppet shows more enjoyable?

    A "his father's band of puppeteers"

    B "behind the brightly painted theater"

    C "pulled the puppets' strings"

    D "made the scenes even livelier"

Alignment

Standard: **RL.05.01**

Key: **D**

---

2. Which detail from the passage **best** shows that the area where Matthias is exploring is frightening?

    A "Finally he spied the faraway ocean."

    B "Life on the road took him to many lonely inns surrounded by woods and meadows."

    C "Today, although he hadn't meant to break his father's rule about not going too far, he'd somehow wound up as lost as the puppet prince."

    D "Now Matthias turned his steps south, eager to leave the forbidding cliffs and eerie lake."

Grade 5 | Reading

This question has two parts. Be sure to answer both parts of the question.

3. How does Matthias feel as he listens to the dragons talk about their egg?

    A He feels glad because the mother dragon is kind.

    B He feels scared because the mother dragon will be protective.

    C He feels shocked because he did not know that dragons had babies.

    D He feels excited because he did not realize the egg would be born so soon.

Which detail from the passage **best** supports the answer to the question above?

    A "'Hello, dear,' it said to the red one. 'I'm just checking on the adorable egg.'"

    B "What he'd believed to be a huge pearl was in fact the shining egg."

    C "I *have* to sneak off before that lady dragon returns, thought Matthias."

    D "'I *did* hear something!' cried the dragon. 'Daddy's coming!'"

4. In paragraph 17, what does Matthias mean when he thinks "a protective new mother has eyes in the back of her head"?

    A Mother dragons are very observant.

    B Mother dragons are strange creatures.

    C Mother dragons' husbands look at them with love.

    D Mother dragons can turn their heads all the way around.

Grade 5 | Reading

5. Which statement **best** describes how the picture helps the reader understand the passage?

    A It explains that Matthias is good at hiding.

    B It illustrates how to tell about dragons using puppets.

    C It illustrates how Matthias decides to tell about his experience.

    D It explains that many people must help with the puppets.

6. Which pair of sentences provides the **best** summary?

    A Matthias sees two dragons in a cave. The dragons have riches and are expecting a baby.

    B Matthias comes across two dragons when he goes exploring. He uses his experience for a new puppet show.

    C Matthias makes sounds for a puppet show. His father is proud of Matthias's new puppet show.

    D Matthias travels all over the kingdom with his father and a puppet show. One day Matthias gets lost while exploring.

Grade 5 | Language Usage

Directions

Today you will take a test in language usage. For this test, you will read a passage and answer questions. Some questions might ask about how to improve the passage. Other questions might ask you to correct errors in the passage. Some of the questions may look different from test questions you have seen before, and some may ask about material that is new to you, but it is important to do your best. If you are not sure of the answer to a question, you should still try to answer it.

Read the passage. Then answer the questions that follow.

What a Dog Knows

1. Have you ever wondered just how much your dog understands? **2.** Sure, your dog knows a few tricks, but did you know dogs can do math? **3.** Studies have shown that dogs not only recognize the difference between large and small, and many and few, but they can also count.

4. <u>In addition,</u> dogs can figure out one treat plus one treat equals two treats. **5.** In an experiment, a dog watches as a researcher first puts one treat and then another behind a screen. **6.** Then, the researcher removes one treat when the dog is not watching. **7.** If the dog can add, it should expect to see two treats when the screen is lifted. **8.** When it sees only one treat, the dog is surprised. **9.** Researchers say the length of time the dog stares at the single treat indicates the dog knows one treat is missing.

10. People who study dog behavior think the ability to count may have been important to the dog's ancestors, which needed to keep track of their pups.

11. <u>Dogs can count,</u> but they also have the ability to learn words and signals. **12.** Some dogs know a lot of words and can learn more with training. **13.** One such dog is Rico the border collie. **14.** Rico recognizes the names of more than 250 toys and can go get them on command.

15. Dog trainers say <u>intelligance</u> differs by breed. **16.** However, all dogs are capable of learning. **17.** The more a dog is trained, the more it learned.

18. While you can't depend on your dog to help with your homework, research shows your pooch may understand a lot more than you think.

"What a Dog Knows" © 2015 by Cognia, Inc.

Grade 5 | Language Usage

This question has two parts. Be sure to answer both parts of the question.

1. How does the writer establish the idea that dogs are capable of learning?

   A by posing a question about dogs to the reader

   B by explaining which breeds can be trained successfully

   C by describing research that shows dogs may be able to count

   D by contrasting the behavior of the reader's dog with its ancestors

   Which detail from the passage **best** supports the answer above?

   A "Have you ever wondered just how much your dog understands?"

   B "Researchers say the length of time the dog stares at the single treat indicates the dog knows one treat is missing."

   C "the ability to count may have been important to the dog's ancestors, which needed to keep track of their pups."

   D "all dogs are capable of learning."

2. How should the underlined words in sentence 4 be changed to **best** connect the writer's ideas?

   A Especially,

   B For instance,

   C Furthermore,

   D On the other hand,

Grade 5 | Language Usage

3. How should the underlined portion of sentence 11 be changed to **best** connect the writer's ideas?

    A Not only can dogs count,

    B Because dogs can count,

    C Even though dogs can count,

    D Especially since dogs can count,

4. Which change to sentence 12 would make the sentence **most** precise?

    A Some people have taught their dogs over 150 words.

    B It is believed that dogs can learn the names of many toys with proper training.

    C Dog owners argue that certain breeds of dogs are smarter than others, and some cannot be trained.

    D Researchers say most dogs can learn more than 150 words, but some learn many more if they are trained properly.

Grade 5 | Language Usage

5. How should the underlined word in sentence 15 be spelled?

    A   NO CHANGE

    B   inteligense

    C   intelligence

    D   intellagence

6. How should sentence 17 be changed?

    A   The more a dog was trained, the more it learns.

    B   The more a dog is trained, the more it will learn.

    C   The more a dog will be trained, the more it learned.

    D   The more a dog would have been trained, the more it learns.

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